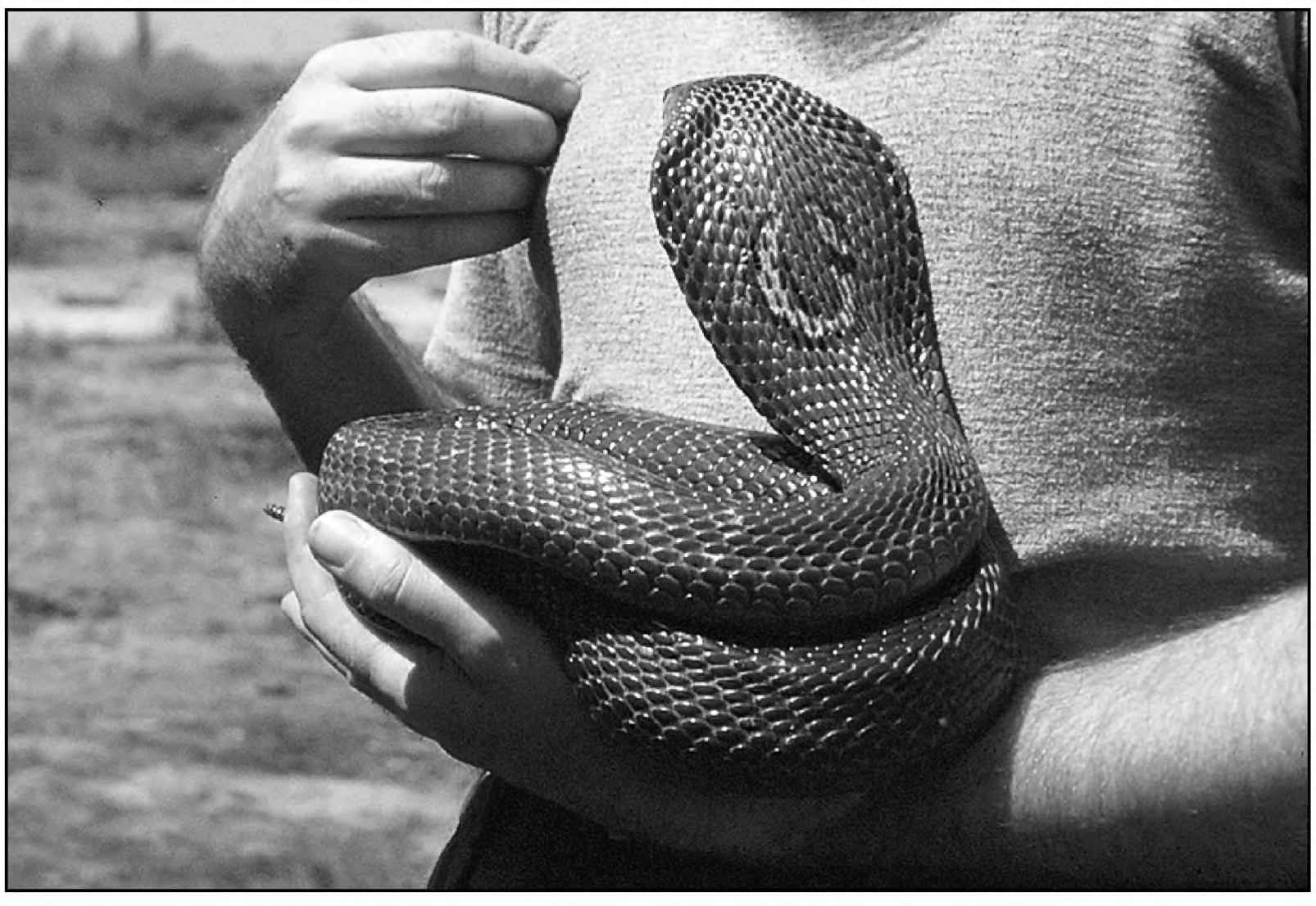
BULLETIN
of the
Chicago Herpetological Society

Special Supplement, 2006

Death from Snakebite: The Entwined Histories of Grace Olive Wiley and Wesley H. Dickinson

by James B. Murphy and David E. Jacques



BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY
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Foreword

The Chicago Herpetological Society does not encourage the keeping of venomous reptiles, and most emphatically does not encourage the free handling of such creatures. The intent of the Society in publishing this special supplement is to bring to light a fascinating and little-known chapter in the history of herpetoculture. And perhaps to raise some questions: Why do some of us relate so strongly to snakes and other reptiles? Why do we desire to keep them in captivity? And if we choose to do so, what are our responsibilities, both to the animals and toward our fellow humans?

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Death from Snakebite: The Entwined Histories of Grace Olive Wiley and Wesley H. Dickinson

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"We went over to Grace. She was standing holding her finger, trying to squeeze the venom out. She was perfectly calm and immediately took command. 'Jule, will you please call Wesley Dickinson. He's a herpetologist and a friend of mine. He'll know what to do.' She gave me his phone number. Then she suddenly turned to Dan. 'He really didn't bite me, did he?' she asked pleadingly. It was the only emotion we saw her show."

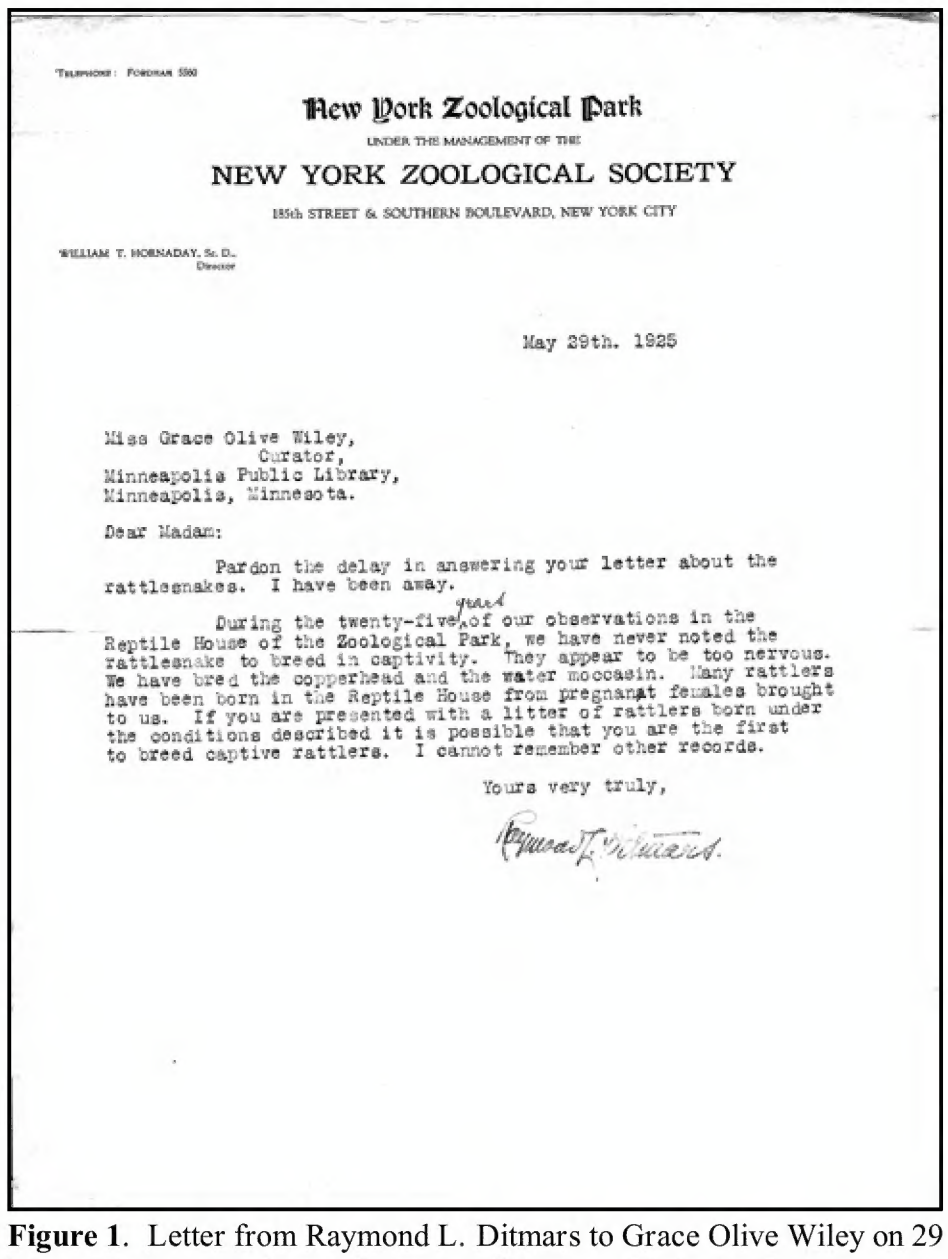
Jule Mannix in her book *Married to Adventure* in 1954

In another article, we covered the brief and tumultuous history of Grace Olive Wiley as herpetological curator at the Brookfield Zoo in Chicago, Illinois (Murphy and Jacques, 2005). After she was fired in 1935, she moved to the vicinity of Long Beach, California, to start a roadside reptile exhibit called "Grace Wiley—Reptiles" where she allowed a number of venomous reptiles to be handled by her patrons. For a modest fee, her visitors could be photographed with an astounding array of snakes, including rattlesnakes, king cobras, common cobras, gaboon vipers, puff adders and other dangerous creatures. At least a dozen tame alligators and crocodiles were loose, basking in the sun between and under the snake cages. One of the crocs was nearly 5 meters in length.

Jule Mannix was a former model and author of the book *Married to Adventure*. Her husband Dan was a photographer for *True* magazine. They had passed by Wiley's exhibit several times and decided to stop in for a visit one day. Jule and Dan were astounded by her charges, including many venomous reptiles, which she handled without fear. Grace claimed that her crocodilians would respond to voice commands and would come to her when called by name. She had named her favorites: Chinese alligator—"Mr. Ferocious"; Egyptian crocodile—"Jackie"; "American alligator—"Bill" and so on. Dan was skeptical but she demonstrated that her charges heard her calls and lumbered toward her when she summoned them.

To tame her venomous snakes, Wiley placed pieces of her clothing in the enclosures so that newly imported snakes would recognize her odor. For many of the more nervous ones such as viperids, she used padded sticks and gently stroked them. In this way, the serpents would grow accustomed to being touched. Cobras' fangs are fixed and venom is injected by chewing. They cannot stab straight ahead to inject venom as vipers can. So as part of the taming process, newly acquired Indian cobras were sometimes allowed to strike at the palm of her hand, held up vertically in such a way that they could not seize hold of anything to bite.

Wiley had a large pair of tame king cobras—a male named "The King of Kings" and a female "Queen"—both were said to be about sixteen feet in length and fed on rats rather than other snakes. To tame them, she used a long padded stick and stroked their tails when their heads were turned away; eventu-



TELEPHONE: FORDHAM 5500

New York Zoological Park
UNDER THE MANAGEMENT OF THE
NEW YORK ZOOLOGICAL SOCIETY
185th STREET & SOUTHERN BOULEVARD, NEW YORK CITY

WILLIAM T. HORNADAY, Sc. D.,
Director

May 29th. 1925

Miss Grace Olive Wiley,
Curator,
Minneapolis Public Library,
Minneapolis, Minnesota.

Dear Madam:

Pardon the delay in answering your letter about the rattlesnakes. I have been away.

During the twenty-five years of our observations in the Reptile House of the Zoological Park, we have never noted the rattlesnake to breed in captivity. They appear to be too nervous. We have bred the copperhead and the water moccasin. Many rattlers have been born in the Reptile House from pregnant females brought to us. If you are presented with a litter of rattlers born under the conditions described it is possible that you are the first to breed captive rattlers. I cannot remember other records.

Yours very truly,

Raymond L. Ditmars.

Figure 1. Letter from Raymond L. Ditmars to Grace Olive Wiley on 29 May 1925. According to Ditmars, Wiley was likely the first person to breed rattlesnakes in captivity. Courtesy of George Rabb, Chicago Zoological Society.

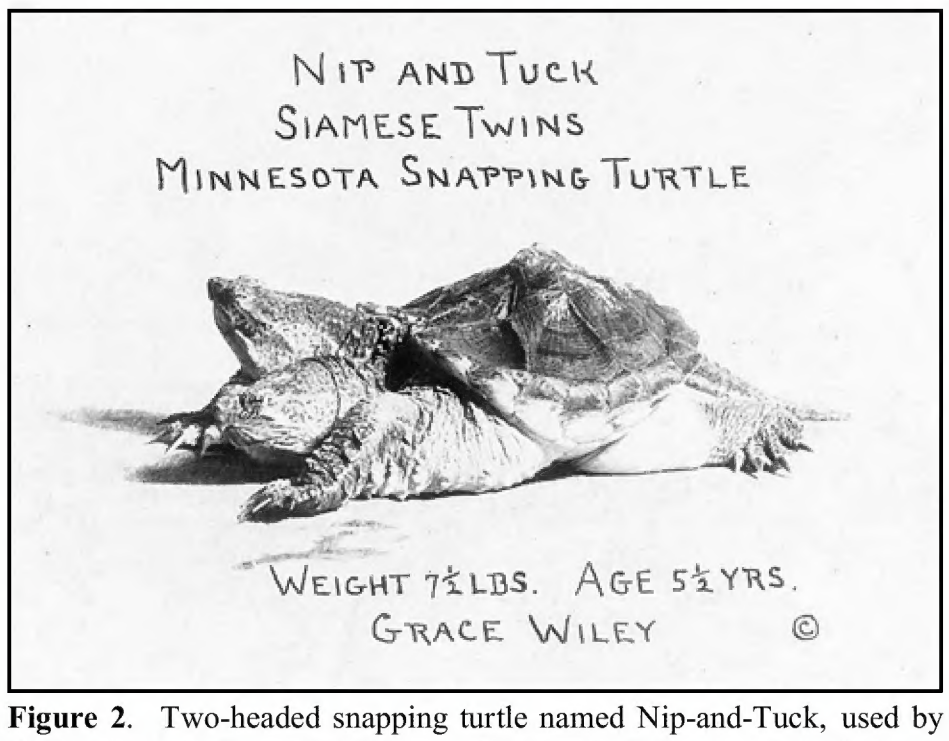


Figure 2. Two-headed snapping turtle named Nip-and-Tuck, used by Wiley during her public lectures. The shell appears to be kyphotic, a condition where the backbone is forced into an abnormally strong curve.

Figure 3. Undated photograph of Grace Olive Wiley with venomous *Heloderma*. Based on her appearance, we suspect that this photo was taken while she was a librarian at the Minnesota Public Library during the early 1930s.

ally the snakes allowed her to touch them and even remove eye caps that had become stuck during shedding. Recently, one of Wiley's padded sticks was discovered in the reptile building at the Brookfield Zoo (George Rabb, pers. com.).

A number of movie studios hired her to wrangle snakes such as king cobras for films like *Trade Winds* with Fredric March and Joan Bennett (1938).

Wiley was featured regularly in newspaper and magazine articles as she wished to publicize her abilities with reptiles and encourage visitation to her attractions. Some of the headlines were a bit lurid: "Herd of Snakes Comes to Party; Women Scamper"; "Monstrosities of Last Stage of Drunken Delirium Leer Lustfully in New Abode at University Farm"; "Flirts with Death"; "Ailing Rattler Gets Taxicab Rides to Medical School to Look at Tuberculosis"; "Troupe of Snakes to be Actors in Entertainment to Help Flood Sufferers"; "Pet Serpents are Guests of Business Women at Luncheon"; "'Tumor' of Wiley's Python Is Blanket"; "Rattlers' Nurse"; "Taming Poisonous Snakes Her Vocation"; "Rattler Bites Woman Keeper"; "Rattler's Cold Is Cured by Use of Oxygen Tent"; "Big Ben, Zoo Rattlesnake Is Wooed by Woman's Love"; "Woman Delights in Giving Bath to Texas Rattlers"; and "Vipers Pass Summer as Girls' Pets."

Figure 4. Undated photograph of Grace showing rattlesnake to an uncomfortable companion. Courtesy of Madge and Sherman Minton.

In December 1943, Wiley penned a note: "To my beloved young friend and protégé, Wesley Dickinson in whom I have found a Kindred Spirit—an appreciation for nature and a great love for our animal friends." In early 1944, Wiley decided to change her roadside exhibit into a more legitimate zoological garden. She became president of the newly-created Long Beach Zoological Society and submitted incorporation papers to the city of Long Beach. Plans were underway to expand the size of her exhibit and move it to a new site; the city was asked to donate 50 acres of land for a new zoo but this did not materialize. Around that time, Corporal Wesley Dickinson in the

Figure 5. A pensive Grace Olive Wiley with king cobra.

Figure 6. Grace removing cobra from bag for film *Trade Winds* in 1938. Photograph provided by George Rabb, Chicago Zoological Society.

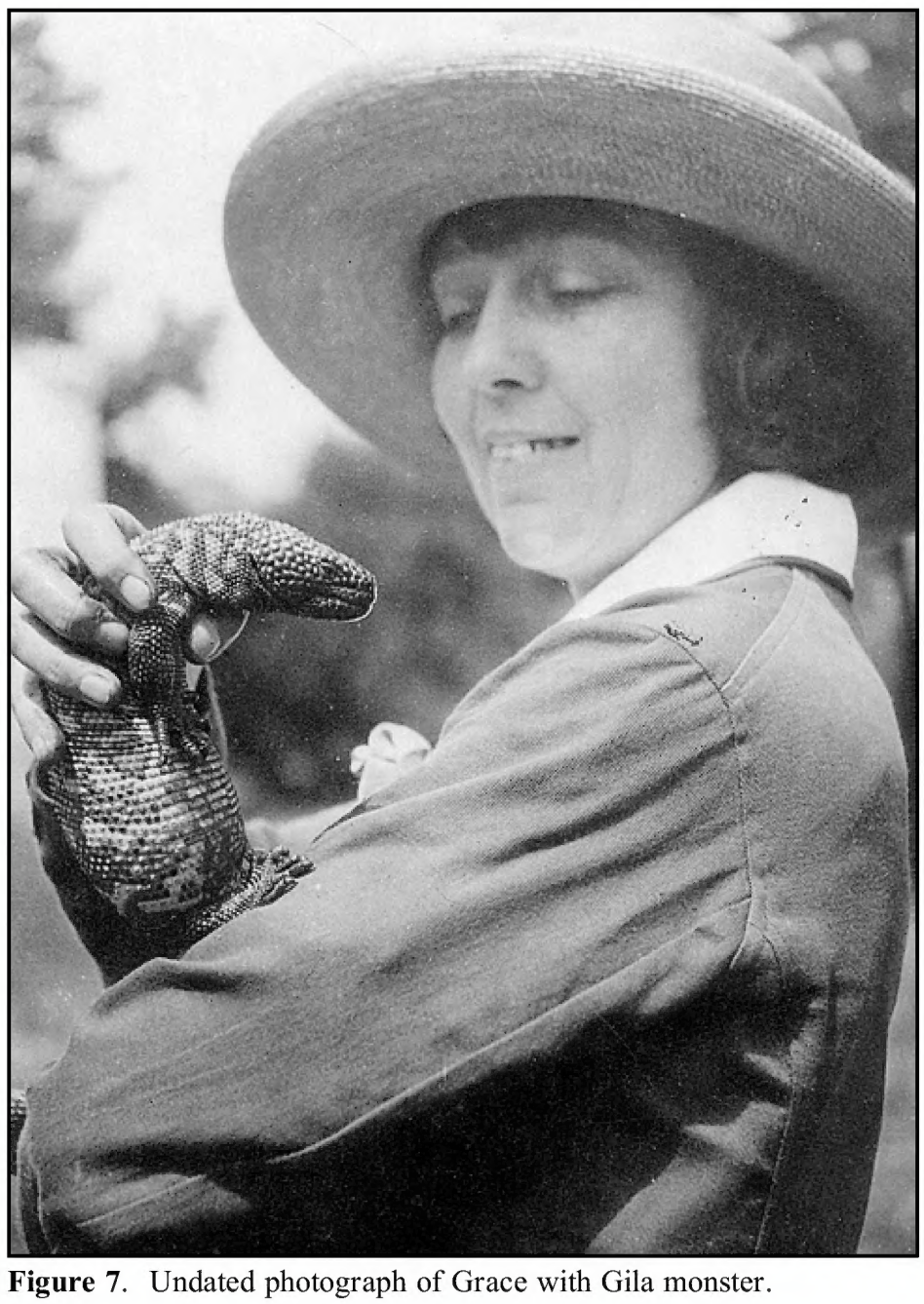


Figure 7. Undated photograph of Grace with Gila monster.

Figure 8. A well-dressed Grace with unusual neck trim.

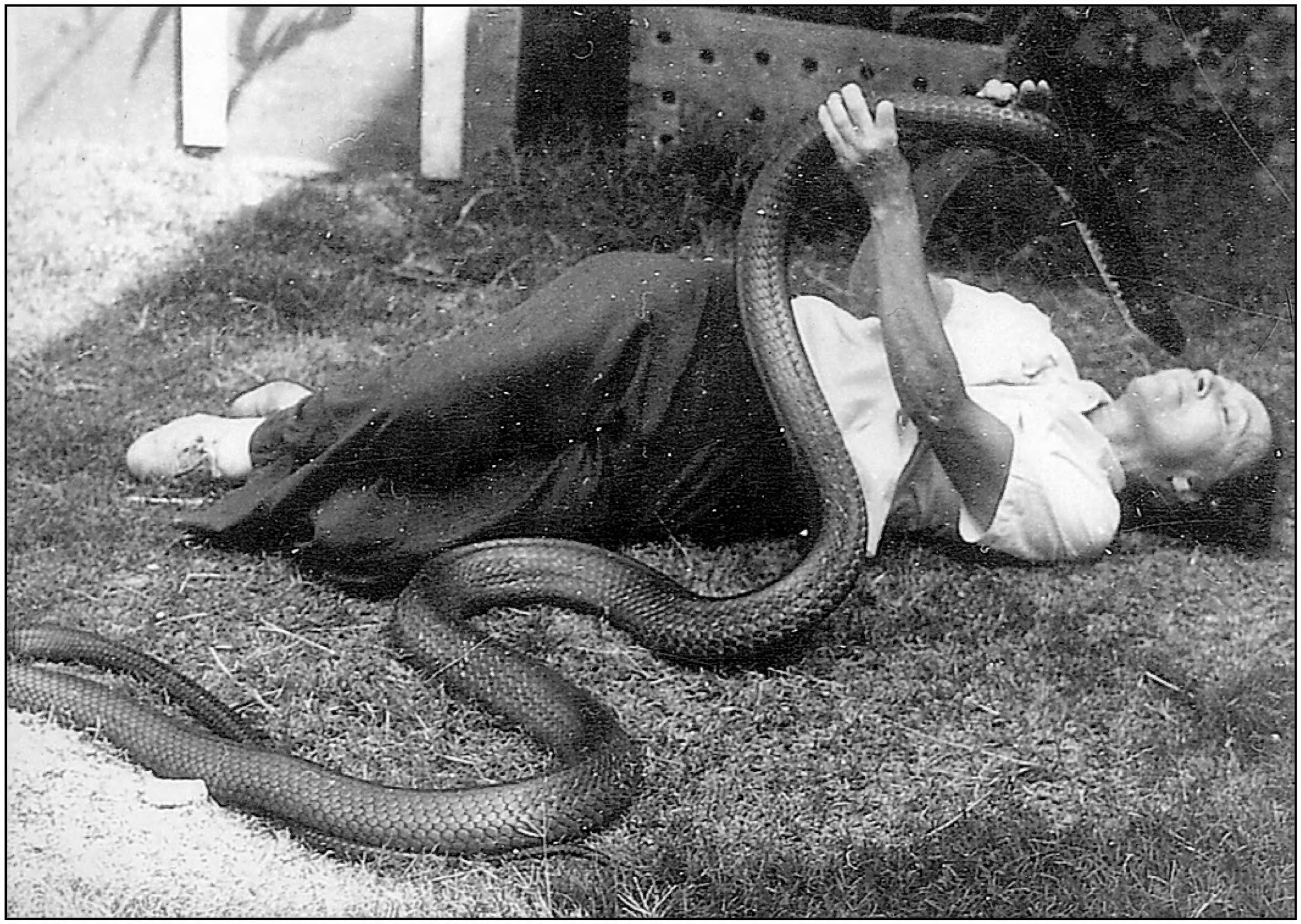


Figure 9. A relaxed Grace Olive Wiley with king cobra.

Army Air Corps was named curator of reptiles. Dickinson was both a soldier and a laboratory technician in the Army hospital dispensary, stationed in India. He amassed a collection of venomous snakes from Assam such as king cobras, Indian cobras, kraits, and Russell's vipers, which were used for demonstrations for the soldiers and some of which were sent to Wiley for the exhibit. As the officer in charge, Colonel Don Flickinger sent soldiers into the field to collect snakes and had cages built for the specimens. At first, the snakes were kept in the Colonel's office but a warehouse was built on the base as the number dramatically increased. At one time, Dickinson had over 100 snakes in his exhibit. Interest was high and dignitaries visited: Lord Louis Mountbatten, General Stratemeyer and General Pat Hurley, the U.S. Ambassador to China.

In January 1944, Dickinson was bitten by an adult Indian cobra, giving him the opportunity to say, "It was the pleasantest snakebite I ever had." Dickinson had developed a method

Figure 10. A contented Grace Olive Wiley with rattlesnake.

Figure 11. Happy Birthday from Grace Olive Wiley.

Figure 12. Child with king cobra. Stamp on back of photo reads "Long Beach Zoological Society."

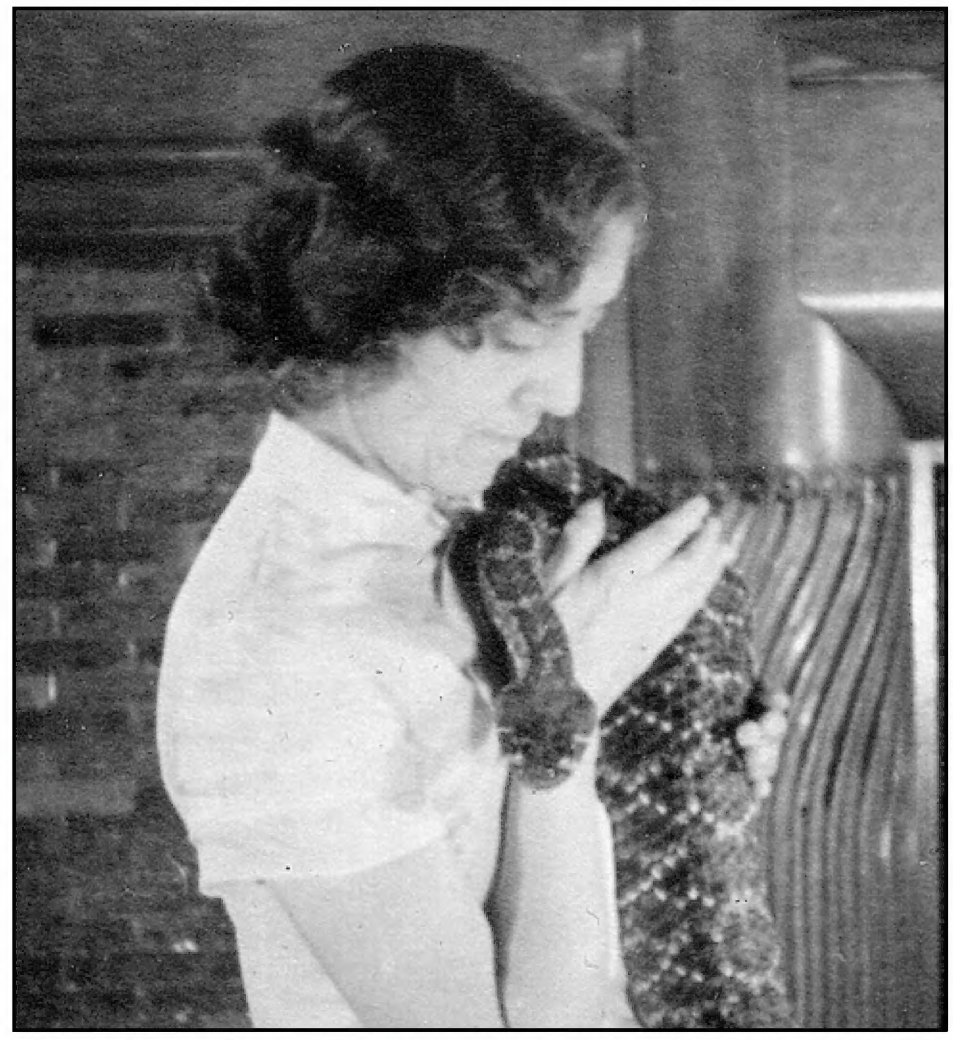


Figure 13. Undated photograph of Grace Olive Wiley and rattlesnake.

Figure 14. Undated photograph of Grace Olive Wiley with king cobra.

Figure 15. Wiley's mother with king cobra.

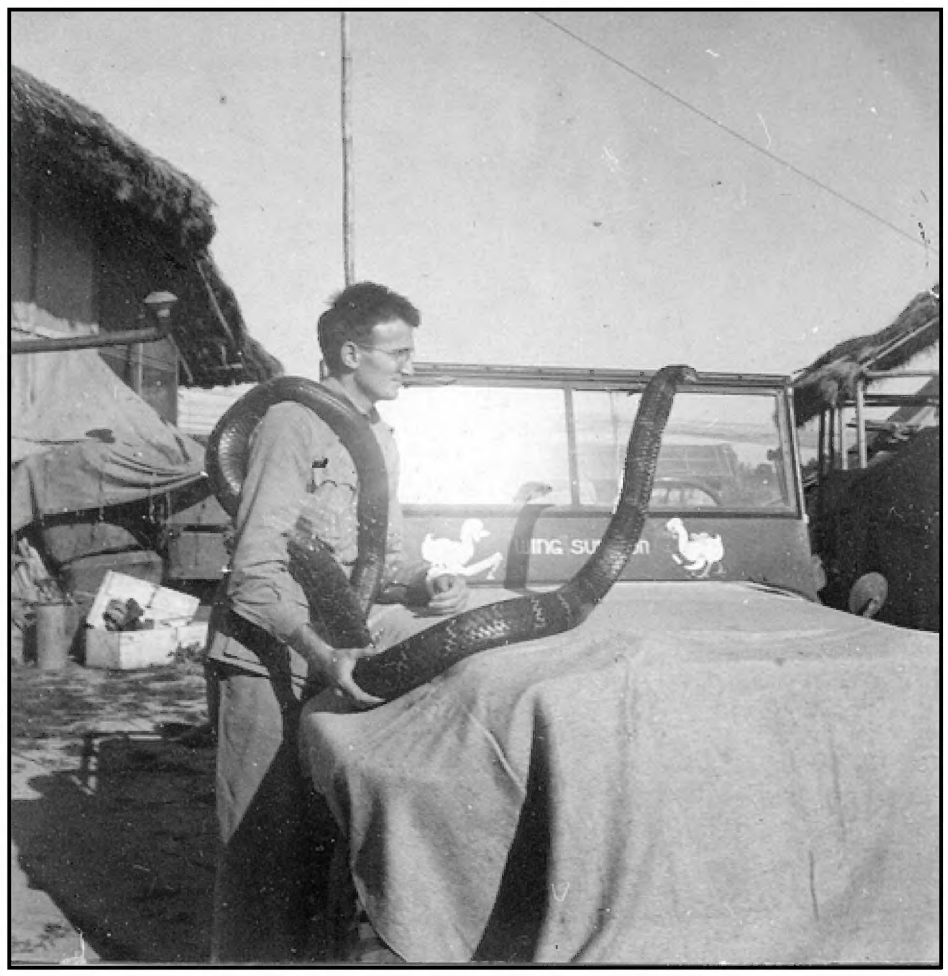


Figure 16. Undated photograph (probably early 1940s) of Corporal Wesley Dickinson in India with large king cobra.

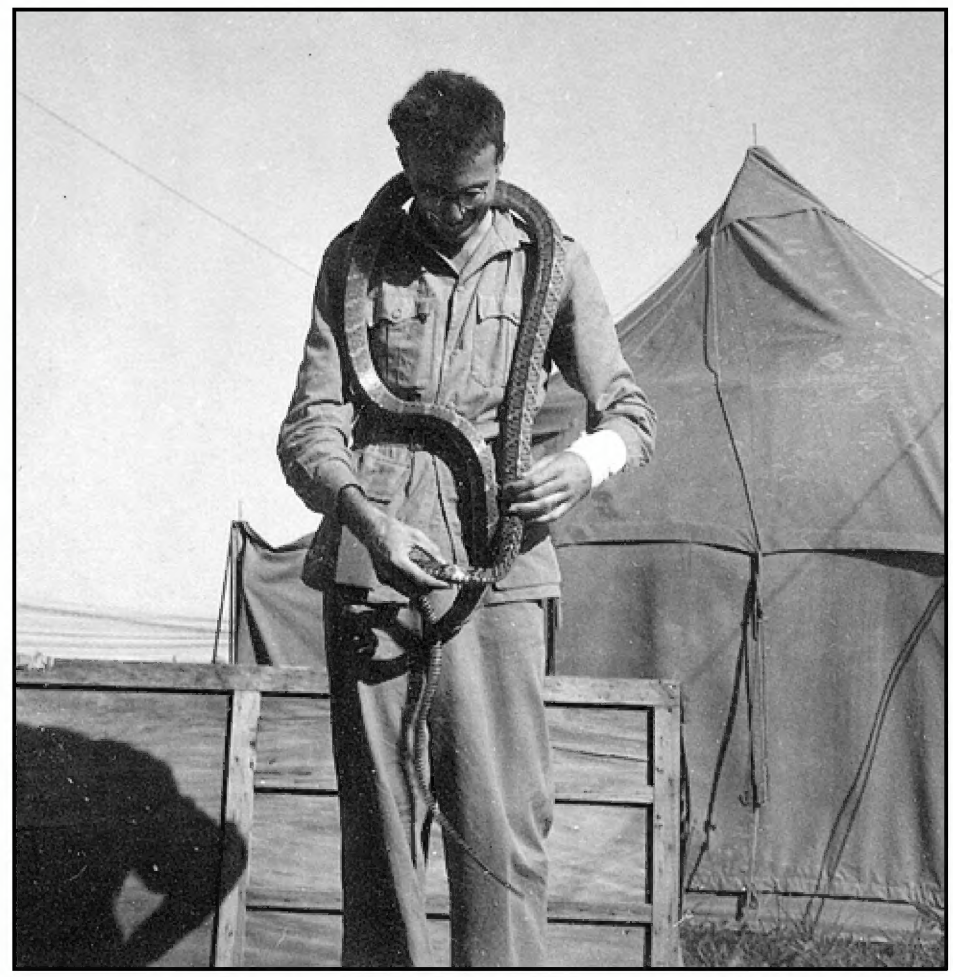


Figure 17. Undated photograph (probably early 1940s) of Corporal Dickinson in India with companion.

for treating envenomations: he made dozens and sometimes hundreds of tiny slits around the site and applied suction cups to remove venom. This time he recovered in two days. Later, he suffered a king cobra bite. He was rushed to a nearby operating table where he directed the staff to cut slits in over two hundred places. His heartbeat and respiration ceased altogether, until he was administered the proper antidotes to save his life. After his slow recovery, Wes claimed that he and the cobra were "blood relatives!"

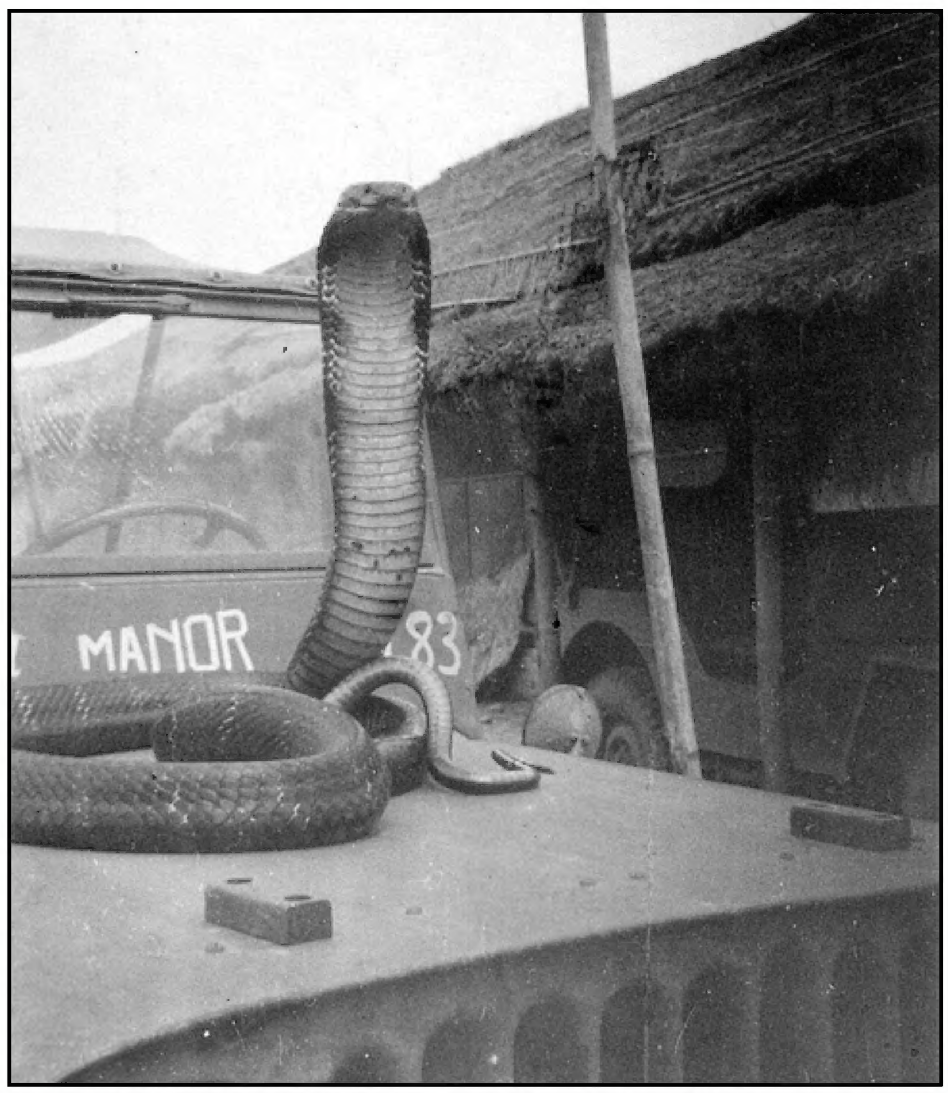


Figure 18. Undated photograph (probably early 1940s) of Dickinson's king cobra, "Black Don" in India.

Dickinson believed in the effectiveness of an antivenin which he had developed as an Army technician; to prove his point, he allowed cobras to bite him on several occasions so the antidote could be tested on a live subject. Paralysis began to set in but he claimed that his drug saved his life, although there was scarring as a constant reminder of the encounters.

In May 1944, Dickinson flew from Assam to National Airport in Washington, D.C., a trip of 7000 miles, with a planeload of snakes. Some were to be used for research at the Army laboratory nearby, some were for the National Zoological Park and some for Wiley's exhibit in Long Beach. In newspaper articles, two adult, jet-black, king cobras collected near the

Figure 19. Undated photograph (probably May 1944) of Corporal Dickinson stepping off the plane at National Airport in Washington, D.C., with python necktie. Approximately 30 reptiles were flown in an Army Transport plane from Assam, India, for the National Zoo. Besides the python five cobras, a Russell's viper, and several kraits were brought by Dickinson, who made a practice of being bitten by such things.

Chinese-Indian border were mentioned as living in the zoo collection and later sent to the National Museum of Natural History upon death. But the following record shows only one brought to the zoo. According to the 1944 Smithsonian Secretary's Report: "From the Medical Section, India China Wing, Air Transport Command, through Col. Don Flickinger, came a collection of Indian reptiles, including cobras, kraits, Russell's vipers, and a monitor lizard. These were brought to Washington by Corp. Wesley H. Dickinson." Further itemization shows: king cobra, Indian cobra, banded krait, common krait, 2 monitors, 2 tree snakes, Russell's viper, 2 rat snakes, 5 pythons. Only one of these, the king cobra, made it into "Animal Record Keeping System (ARKS)," a computerized database that lists the histories of zoo animals. This cobra died 14 May 1944 (arrived 2 May). There is no indication of what happened to the carcass (Mandy Murphy, pers. com.) although we know that the cobra was never sent to the museum (George Zug, pers. com.). Dickinson believed, based on color, that these black king cobras were a new species and he planned to write a paper describing them in the proposed *Journal of the Long Beach Zoological Society* but apparently this serial was never published. Whitaker and Captain (2004) mention that adults from Arunachal Pradesh are entirely bluish-black without bands. Arunachal Pradesh is in eastern India relatively close to Assam and the Chinese border so Dickinson's specimens may have come from that vicinity.

After Wes Dickinson returned to Long Beach in 1944, he continued his association with Wiley. Both of them gave many demonstrations to civic groups, using tame venomous reptiles as props. Wiley often fed minnows with her fingers to cottonmouths during these programs. Both were regularly featured in magazine and newspaper articles with photos handling king cobras and other venomous animals.

On 20 July 1948, Dan Mannix wanted to get some pictures of Wiley with an Indian cobra spreading its hood for his magazine. Since her tame specimens did not spread their hoods, a newly imported snake was used. On its hood, the cobra had an unusual marking—"G"—so she was particularly excited that this snake had the first initial of her name so prominently displayed. Whenever Grace acquired wild cobras, she would allow them to strike the palm of her hand and stroke their heads to tame them. Grace was near-sighted and disliked being photographed wearing eyeglasses so she removed them for the camera. She misjudged the snake's strike and the cobra was able to seize her middle finger and chew to inject venom, a tragedy forever recorded in a photograph in the Mannix book (facing p. 220). Wiley asked Dan to administer strychnine to stimulate her heart to prevent paralysis. A short time later, Dickinson arrived at her side with an ambulance from Long Beach Hospital but the attendants were unable to counteract the effects of the venom. She was rushed to the hospital in the ambulance but died ninety minutes after being bitten. She was

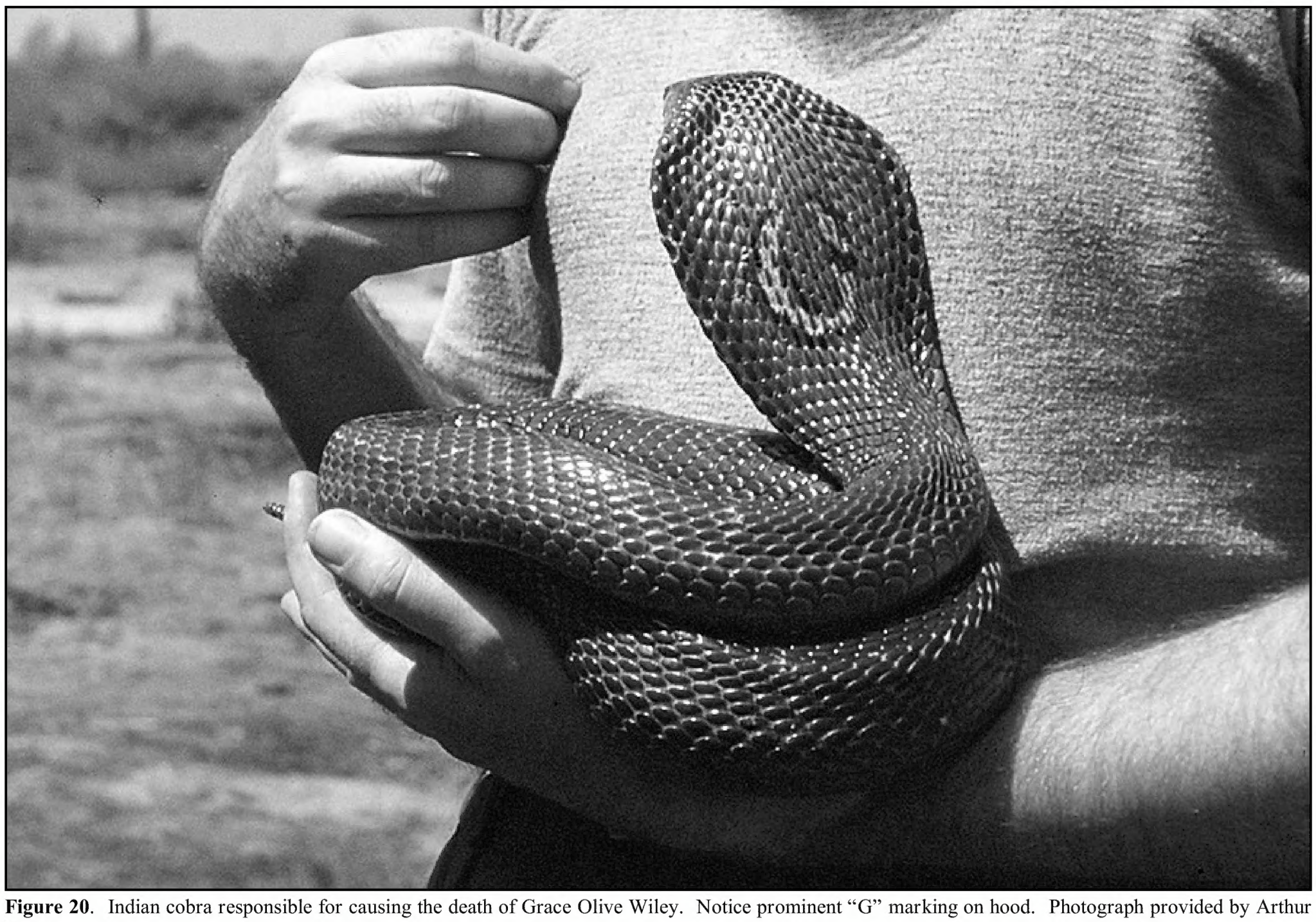


Figure 20. Indian cobra responsible for causing the death of Grace Olive Wiley. Notice prominent "G" marking on hood. Photograph provided by Arthur Dunn.

Figure 21. Wesley Dickinson holding Indian cobra responsible for causing the death of Grace Olive Wiley. Notice prominent "G" marking on hood. Dickinson imported hundreds of Indian cobras and this was the only specimen with this unusual marking. Photograph provided by Arthur Dunn.

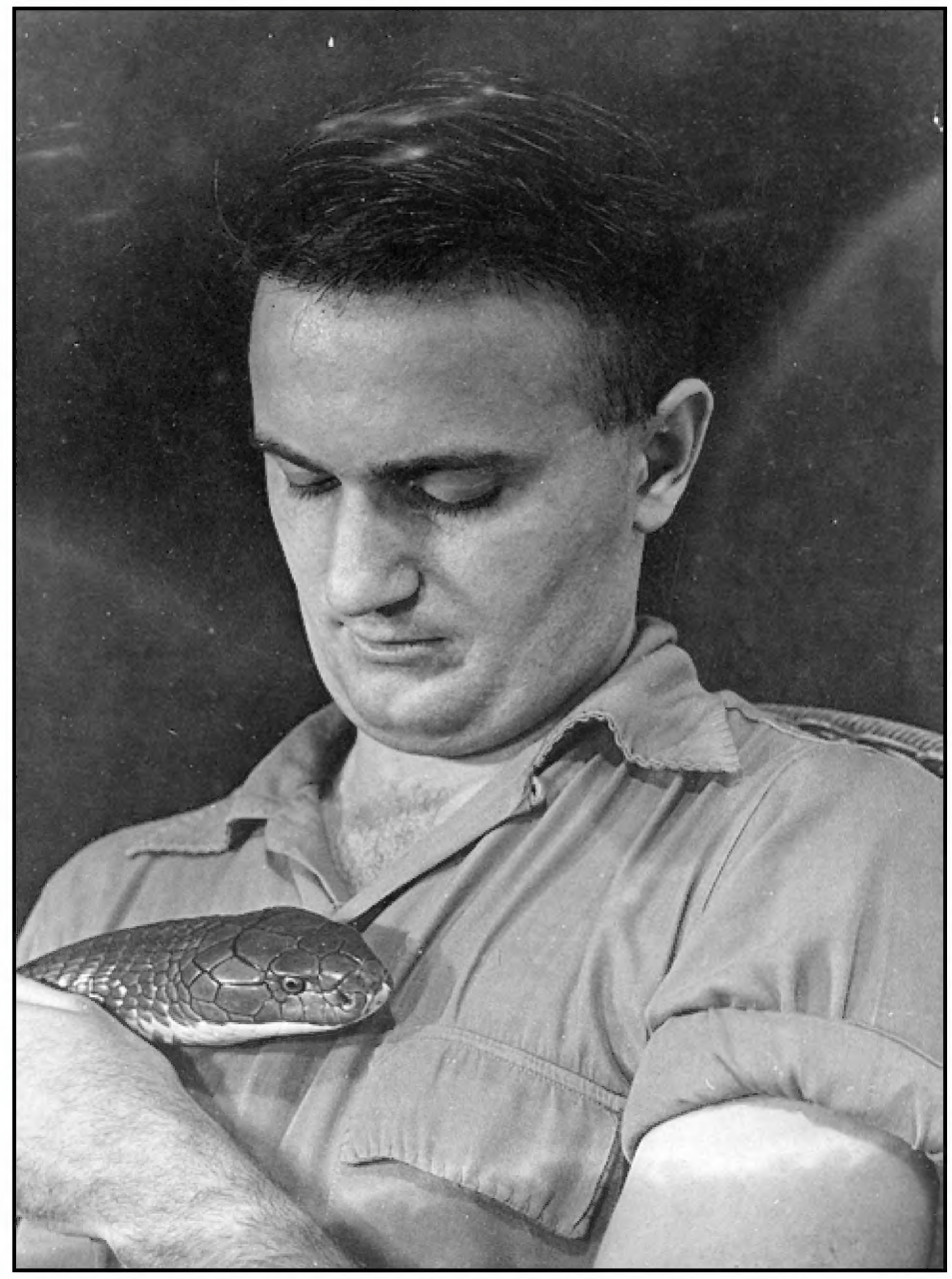


Figure 22. Undated photograph of Wesley Dickinson with king cobra.

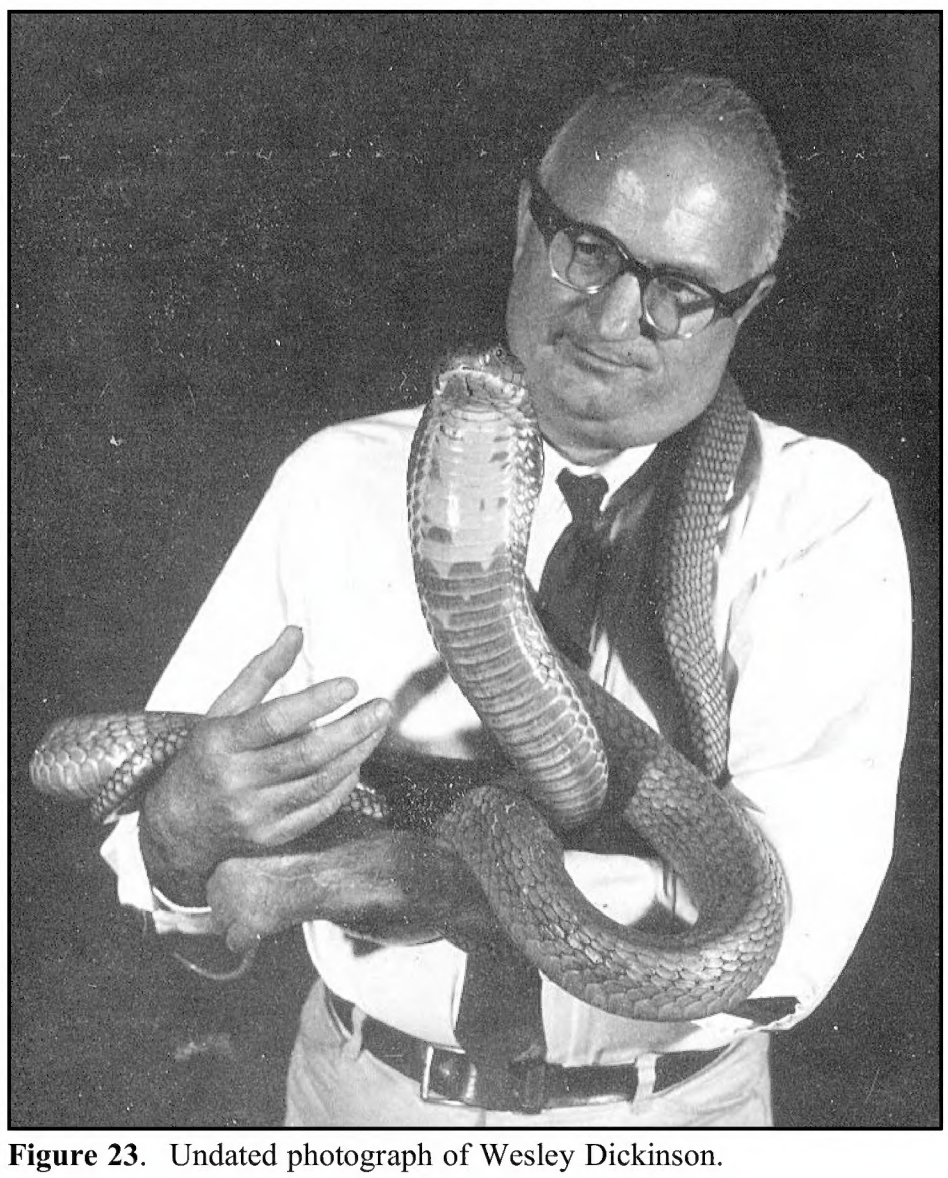


Figure 23. Undated photograph of Wesley Dickinson.

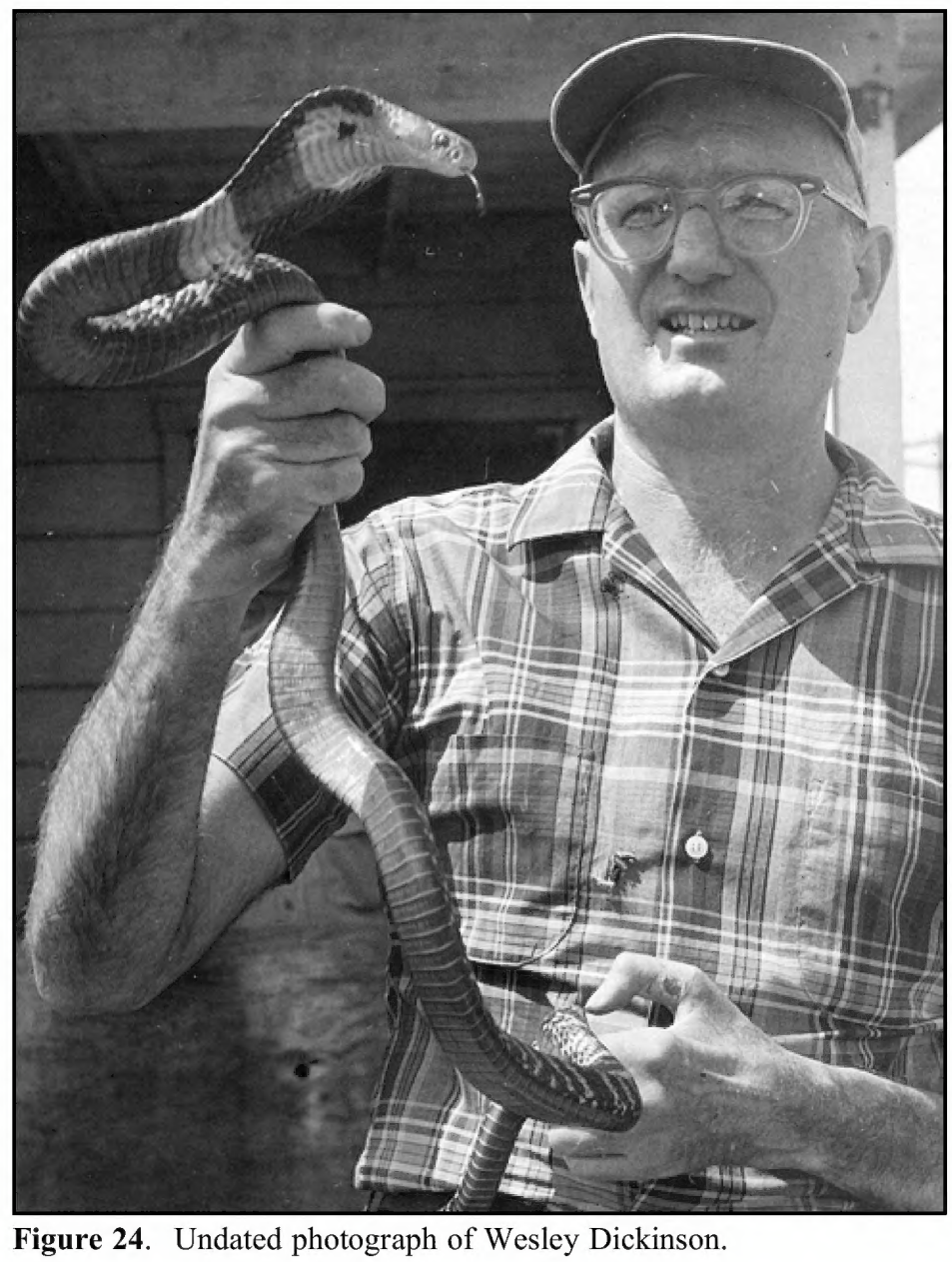


Figure 24. Undated photograph of Wesley Dickinson.

Figure 25. Wesley Dickinson playing with his pet cheetah.

Figure 26. Dickinson (right) holding reticulated python that was sent to the Dallas Zoo in 1966, where it lived for many years on exhibit.

65 years old.

Dan Mannix tried to sell the picture to several magazine editors to support Grace's aged mother but the amount received was meager—$250. Dickinson contacted a number of zoos to buy the whole animal collection and name the assemblage in her honor but he was unsuccessful; it was sold piecemeal. Mannix said that the now-famous cobra was sent to a roadside attraction in Arizona but Dickinson told one of us (DEJ) that it was dispatched so that Grace's name would not be sensationalized or commercialized.

After Wiley's death, Dickinson opened a pet shop, "A1 Pets and Zoological Imports," in Santa Ana (near Long Beach). A number of birds lived in a large, screened, walk-through aviary in the rear. A tame cheetah lived in the shop as well and was rented to movie studios for film projects. One of these films, Walt Disney's *Swiss Family Robinson*, included an adult anaconda; this snake later gave birth to 23 healthy babies back in the shop. All of his birds were used for another Disney movie, *Light in the Forest*, in 1958. His tame water monitor "Slinky" was the saurian star in the movie version of Jules Verne's *Journey to the Center of the Earth* the following year.

When the pet shop closed, he moved to another home in Santa Ana and worked as a bookkeeper for an electrical supply company. In 1954 he was one of the founders of the Southwestern Herpetologists Society, which holds monthly meetings and an annual expo at the Orange County Fair in Costa Mesa to this day. In his capacity as leader, he arranged many collecting trips for the members. When Howard K. Gloyd was working on his monograph on the *Agkistrodon*, Wes provided a number of cottonmouths and Asian pitvipers to study. Wes gave lectures and demonstrations to service clubs, scouting groups and churches, and wrote articles for the local newspaper. Dickinson was briefly married (for six months) but his wife was killed in an automobile accident; he was heartbroken and never remarried.

There was a small zoo in Santa Ana and Dickinson was a strong supporter. He was a major force in gathering donations from the community to build a new, badly-needed food storage building.

Dickinson believed in equal treatment for all persons. One day, an African-American couple came to a local coffee shop and watched while other later arriving white patrons were served before them. Eventually they were served but the food was cold; when they asked for their fare to be reheated, their request was ignored. Wes took his plate, inverted it, smashed it on the table, and invited the couple to join him at another restaurant down the street. Before they left, he chastised the manager for his prejudice and rudeness.

Dickinson loved flying and owned two airplanes: a Piper Tri Pacer and a twin-engine T-50 Cessna. His plan was to eventually import animals directly from the countries of origin and transport them in his planes but this never materialized. He enjoyed traveling, and made trips to Japan, Thailand, India, Hong Kong, the Philippines, Great Britain, Mexico, Nicaragua and other parts of Central America, mostly to collect reptiles and amphibians.

Wesley Dickinson lived in a modest house in Santa Ana, surrounded by his extensive floral and faunal assemblages. He was an avid reader and one room in his home was packed with his natural history library and texts covering business and economics. Two young African lions lived in another bedroom

Figure 27. Season's Greetings from Wesley Dickinson.

June 8, 1966

Received of David Jacques $150.00 (One Hundred and Fifty Dollars).

Wesley H. Dickinson

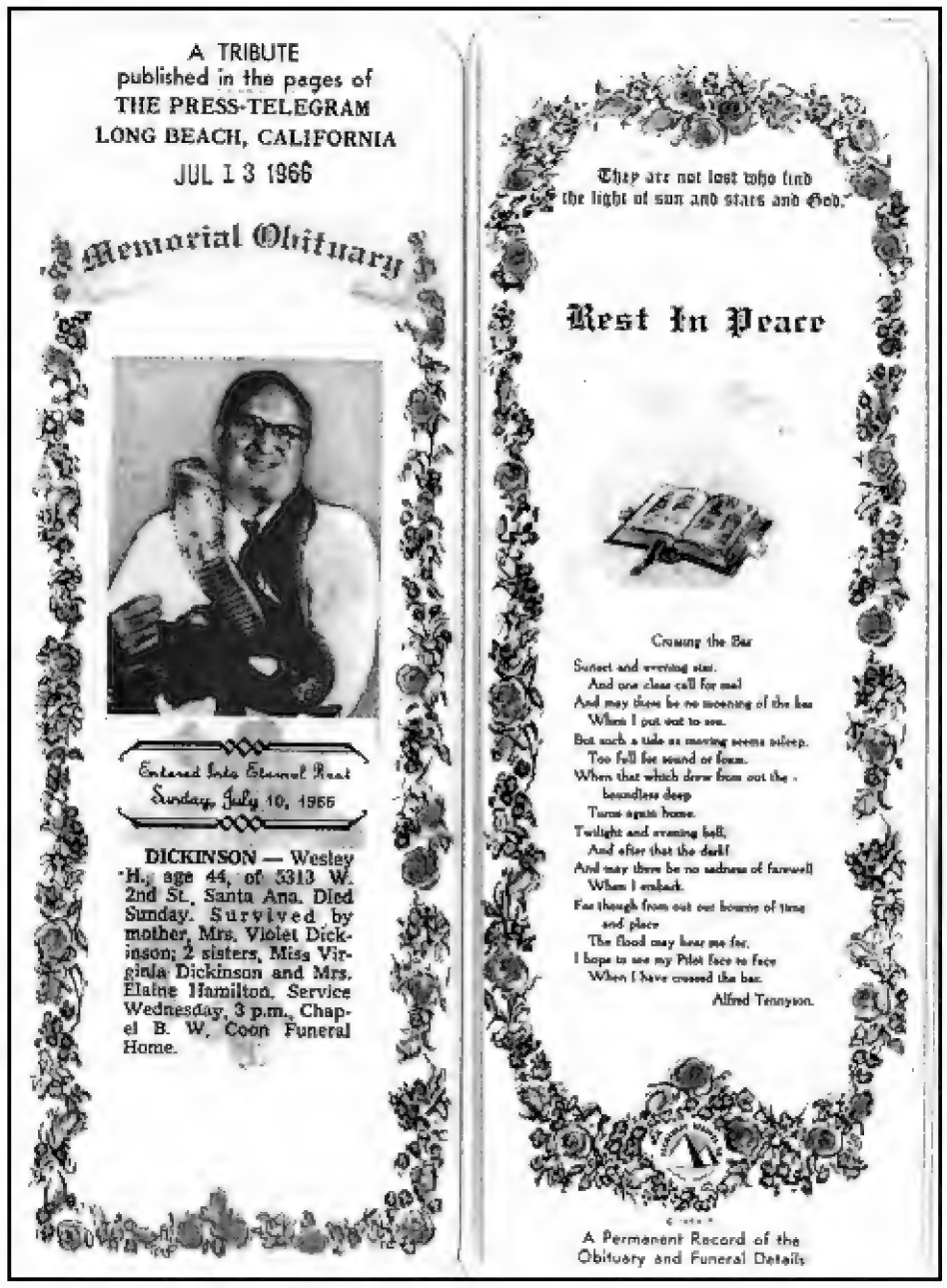
20 days from date I promiseto pay David Jacques $150.00 (One hundred and fifty dollars) plus interest at 6%.

Wesley H. Dickinson

Paid in full 6-27-66 by W C Hamm
David Edson, Calif

Figure 28. Promissory note to David Jacques from Wesley Dickinson to pay for shipping king cobras collected by "Snake Man" C. J. P. (Constantine John Philip) Ionides. Dickinson believed that marketing snakes supplied by Ionides, a well-known collector, would increase their value when offered to zoos and private collectors.

and as they grew, became less and less manageable. Wes would ask visitors to flip a coin and the loser had to wrestle with them while the winner dashed into the room to turn on the lights. The main beneficiary was Goodwill Industries since Wes had to replace his couch every few weeks after the lions ripped the original one apart. His pet capuchin monkey escaped and completely destroyed his household—books were pulled off the shelves, kitchen dishes smashed, and furniture torn apart. His orchid collection was extensive and virtually all of the species found in Panama were represented. Cages filled with snakes and other reptiles were squeezed into every nook and cranny throughout the house.

On 8 June 1966, Dickinson borrowed $150 from DEJ to pay for shipping a group of king cobras to Long Beach. "Snake Man" C. J. P. Ionides, a snake collector from Africa, had traveled to India to collect these snakes and arranged with Dickinson to import nine or ten females which were collected while guarding nests. These snakes, ranging between seven and nine feet, were being forcibly fed as all were thin. On 10 July 1966, Wesley Dickinson suffered a fatal snakebite from one of these cobras: Art Dunn and DEJ were with him when he was bitten in Santa Ana. He had suffered an earlier bite from a cottonmouth which left his left hand partially paralyzed and numb. One large cobra required immediate assist-feeding as it was very emaciated. Dickinson's procedure for immobilizing king cobras began by placing a long muslin net over the snake's head when it reared in a defensive posture. The far end of the net was open and as the snake crawled through the aperture, it was pinned behind the head while still in the net. His technique for feeding had been used often with debilitated snakes in the past—strips of flank steak were inserted into a snake's mouth and gently forced into the gullet with a long, thin bamboo stick. Unfortunately, due to lack of sensation in his hand, Wes was unaware that the snake had twisted from his grasp and bitten him through the muslin; it was only after a few

A TRIBUTE
published in the pages of
THE PRESS-TELEGRAM
LONG BEACH, CALIFORNIA
JUL 13 1966

Memorial Obituary

Entered Into Eternal Rest
Sunday, July 10, 1966

DICKINSON — Wesley H., age 44, of 5313 W. 2nd St., Santa Ana. Died Sunday. Survived by mother, Mrs. Violet Dickinson; 2 sisters, Miss Virginia Dickinson and Mrs. Elaine Hamilton. Service Wednesday, 3 p.m., Chapel B. W. Coon Funeral Home.

They are not lost who find
the light of sun and stars and God.

Rest In Peace

Crossing the Bar

Sunset and evening star,
And one clear call for me!
And may there be no moaning of the bar
When I put out to sea.
But such a tide as moving seems asleep,
Too full for sound or foam,
When that which drew from out the boundless deep
Turns again home.
Twilight and evening bell,
And after that the dark!
And may there be no sadness of farewell
When I embark.
For though from out our bourne of time and place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crossed the bar.

Alfred Tennyson.

A Permanent Record of the
Obituary and Funeral Details

Figure 29. Unusual death notice fit for a herper.

drops of blood had pooled on his hand that he realized that he had been envenomated. Wes said, "Oh my God, she is biting me!" and "I don't feel any symptoms, perhaps it's a dry bite." Within one minute, his speech was slurred and he became comatose a few minutes later. Although first aid measures were initiated such as mouth-to-mouth resuscitation and antivenin, these were unsuccessful and he died in less than 15 minutes after being bitten. He was 44 years old.

When Dickinson died, his collection of scrapbooks, photos, newspaper clippings and correspondence was given to DEJ; it forms the basis for our two articles. Most of the images have never been published before and offer an intriguing glimpse into the lives of these snake handlers.

Should Potentially Dangerous Reptiles Be Handled and What Are the Long-term Effects?

Wiley and Dickinson died from venomous snakebites, clearly illuminating the great risks associated with directly contacting dangerous reptiles. It may fairly be said, however, that both fatalities occurred with newly imported snakes rather than with snakes that had been habituated. Wiley and Dickinson were apparently careful handlers, normally holding only one unrestrained snake at a time and almost never behind the head. Many of their snakes were "tame" (habituated) and maintained in good condition. Both Grace and Wes seemed truly fond of their charges as illustrated in the photographs in our articles. In her 1937 paper Wiley said, "Somehow they know very, very soon that I am friendly and like them. They

Figure 30. Wesley Dickinson (right) force-feeding bushmaster.

Figure 31. Force-feeding "Blondie," a reticulated python (*Python reticulatus*) at the Saint Louis Zoo. Moody Lentz is holding the head. Undated photo provided by St. Louis Zoo, courtesy of Ronald Goellner.

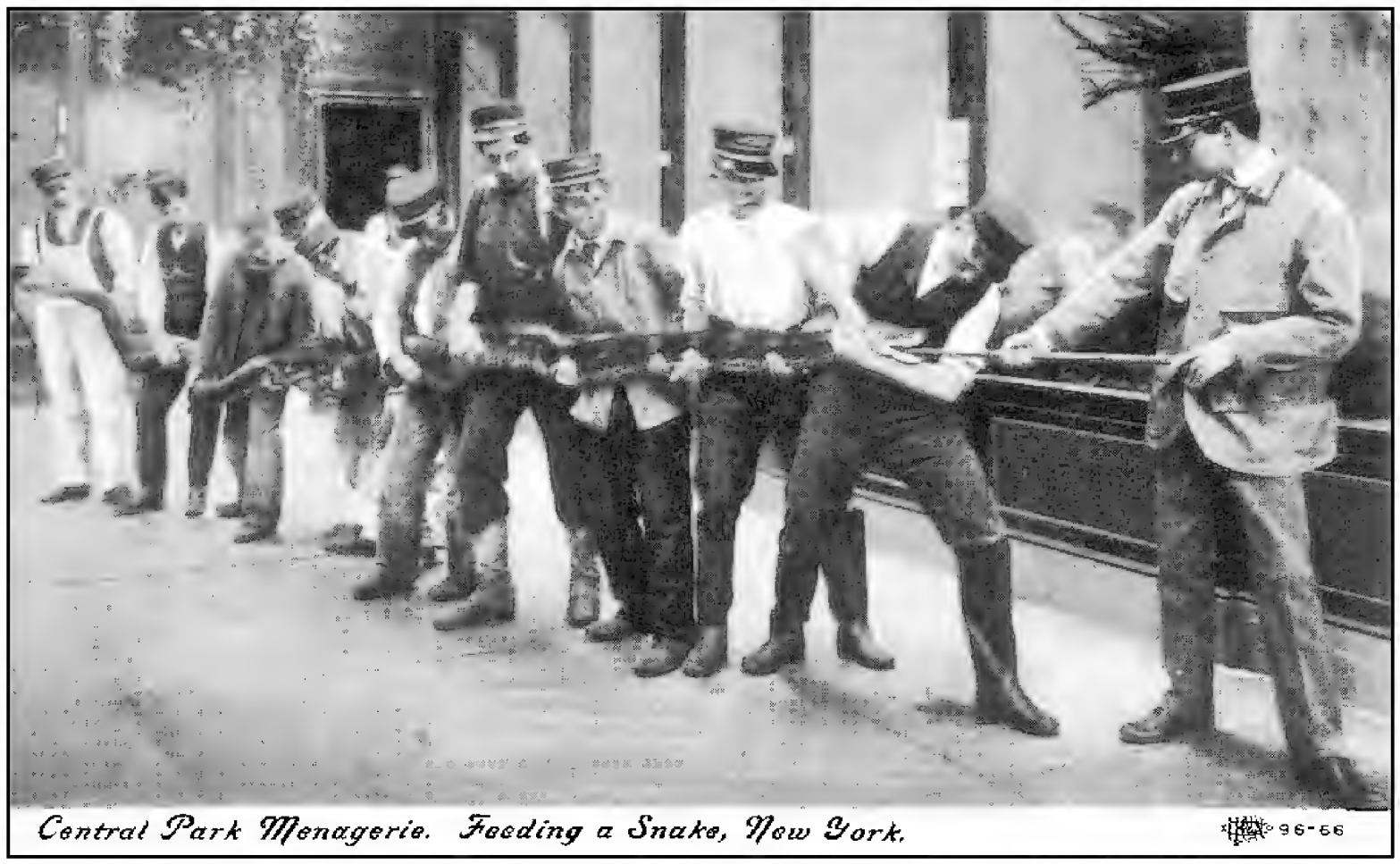


Figure 32. Undated postcard, possibly around 1913, of force-feeding technique used for large constrictors at New York Zoological Society. Provided by Brint Spencer.

Figure 33. Because ophidians were stressed after venom extraction, liquefied food was administered with caulking gun and rubber tube inserted into snake's gullet at Miami Serpentarium. Provided by Brint Spencer.

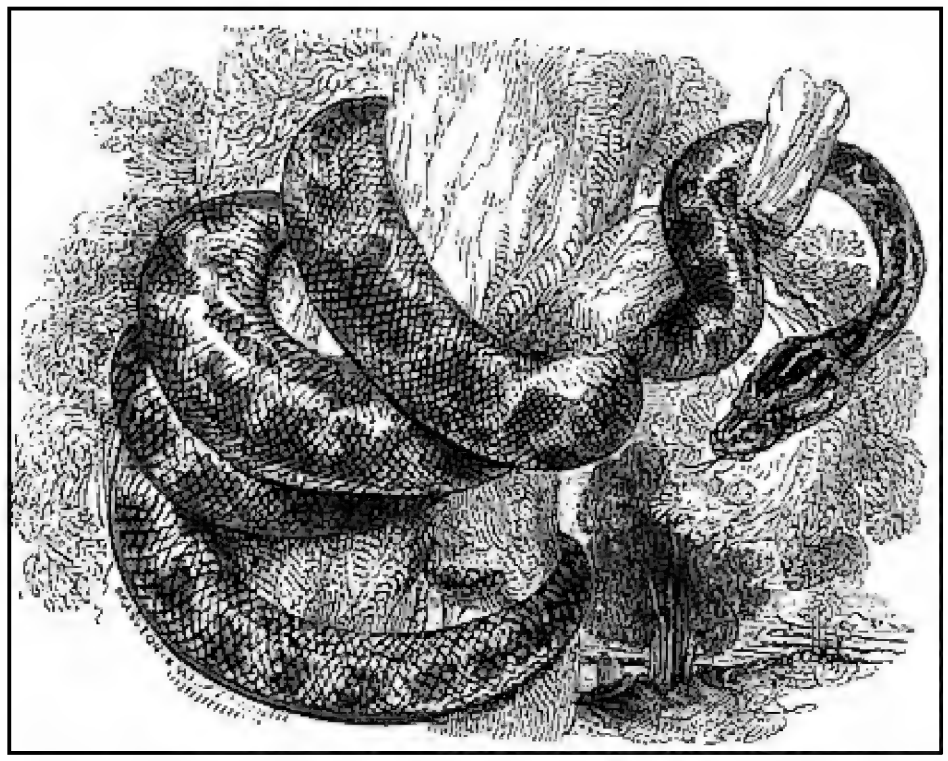


Figure 34. Keeper Alfred Cops was nearly killed when an "Anaconda" (likely a Ceylonese python) grabbed him by the hand. *From* Bennett, E. T. 1829. The Tower Menagerie. Courtesy of Smithsonian Institution Libraries, Washington, D.C.

appear to listen intently when I stand quietly at their open door and talk to them in a low, soothing voice. In some unknown manner my idea of sympathy is conveyed to them." She continued, "In all this research the motive has been an earnest endeavor to learn scientific facts—the *truth* regarding these little-known reptiles. Never has the author for one moment entertained the thought, or had the desire to 'show off.' It has only been a great pride to demonstrate how truly wonderful were these greatly feared creatures that I learned to trust and love, just as one likes to show off one's own dog that has learned a new trick or lesson."

When we have discussed the histories of Wiley and Dickinson with our colleagues, two major contradictory responses emerge. The first and more prevalent is that their activities were indefensible, foolhardy and bizarre. The second is that the relationship that both had with their animals was unique, nurturing, fascinating and cannot be dismissed easily as aberrant behavior. We leave this for the reader to judge.

When one surveys the literature, there is a paucity of information on the rationale for handling snakes. One common

Figure 36. Undated postcard of Ensil Ross Allen. Note caulking gun on left which was used to force-feed snakes with liquid gruel. Provided by Brint Spencer.

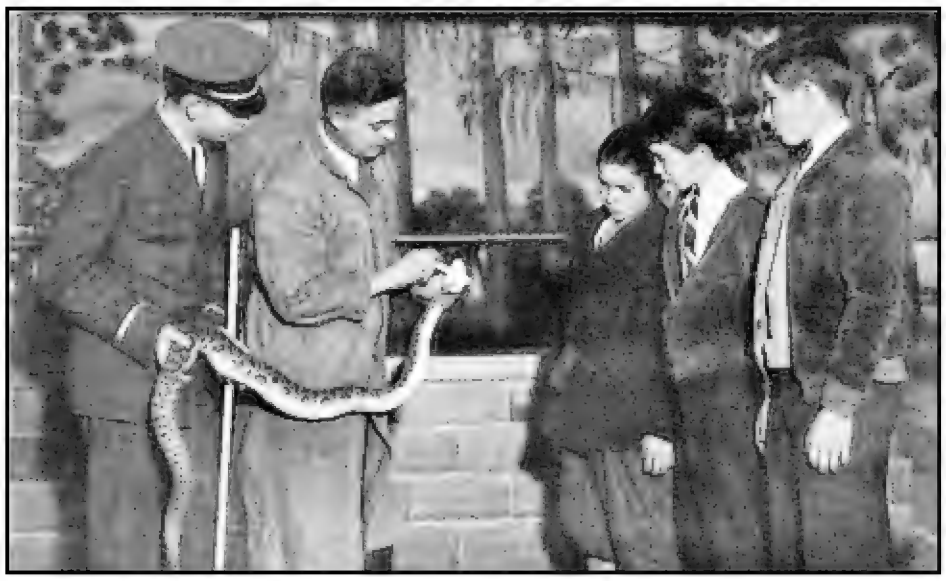


Figure 35. Carl F. Kauffeld (holding snake head) pictured in "News Bulletin of the Staten Island Zoological Society" in March 1937. Each issue cost 5 cents. Courtesy of the Staten Island Zoological Society, provided by Ken Kawata.

reason for handling them was restraint during force-feeding, particularly pitvipers and large constrictors. In the beginning, zoo workers and others responsible for keeping captives in good condition tried a number of techniques with limited success. As a result of these failures, snakes had to often be restrained by hand and forcibly fed, a practice fraught with danger for both handler and serpent. During the last few decades, our increased understanding of snake predatory behavior has resulted in improved captive care with less stressful handling (see Murphy and Campbell [1987] for examples).

A suite of thought-provoking implications about handling reptiles surfaces when effects are considered. Several questions were posed by Chiszar et al. (1993): 1) Does handling of reptiles by humans represent a form of surrogate dominant behavior?; 2) Could being restrained by tongs or by hand create for a snake a pattern of tactile, proprioceptive, and hormonal events similar to those created by being defeated by a dominant conspecific?; 3) Do normal husbandry procedures cause stress?

Robert Mertens (1946: translated from German) addressed "tameness": "Perhaps the combination of all life conditions in a terrarium is responsible, which simultaneously influence the

Figure 37. "Snake Farmer" Werner Krause and wife Pia extracting venom from a cottonmouth (*Agkistrodon piscivorus*) at Tierpark Berlin Snake Farm on 25 November 1959. Photograph by Gerhard Budich, provided by Falk Dathe and Gisela Petzold.

Figure 38. Head Keeper J. Tyrell with one of his charges ca. 1890 at London Zoo. Photograph provided by John Edwards.

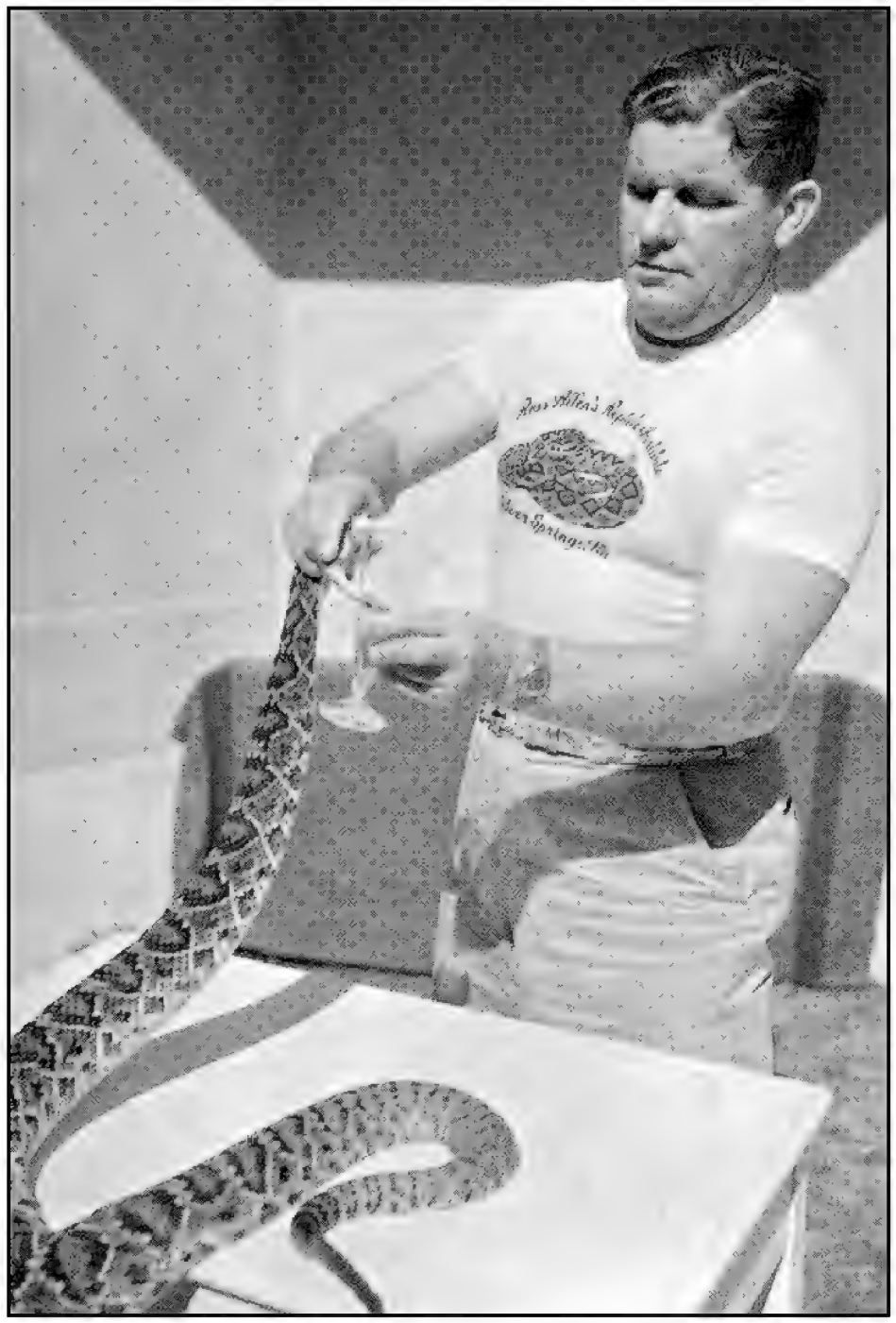


Figure 39. Undated postcard of Ensil Ross Allen. Provided by Brint Spencer.

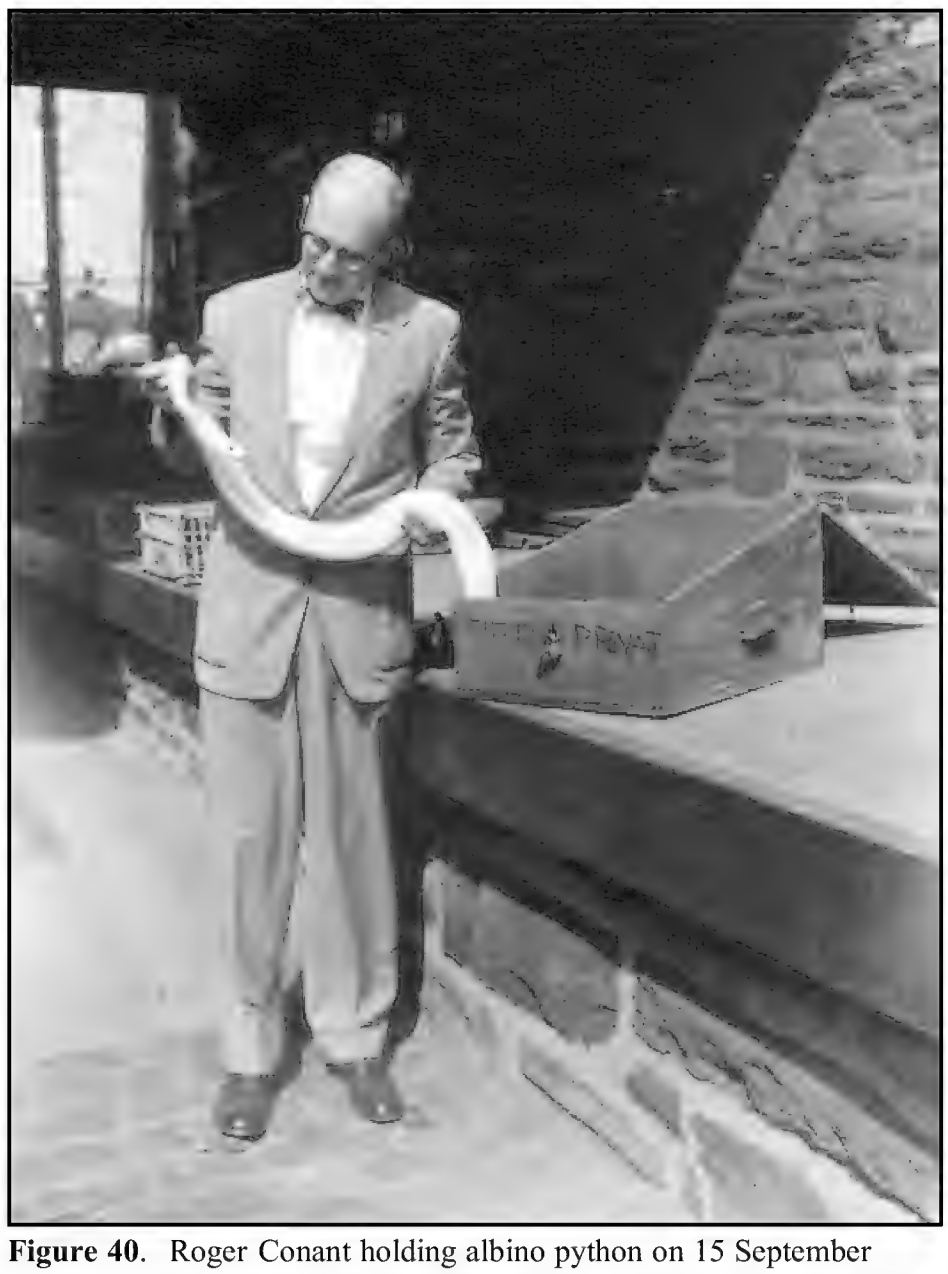


Figure 40. Roger Conant holding albino python on 15 September 1955. Zoological Society of Philadelphia Archives, provided by Brint Spencer.

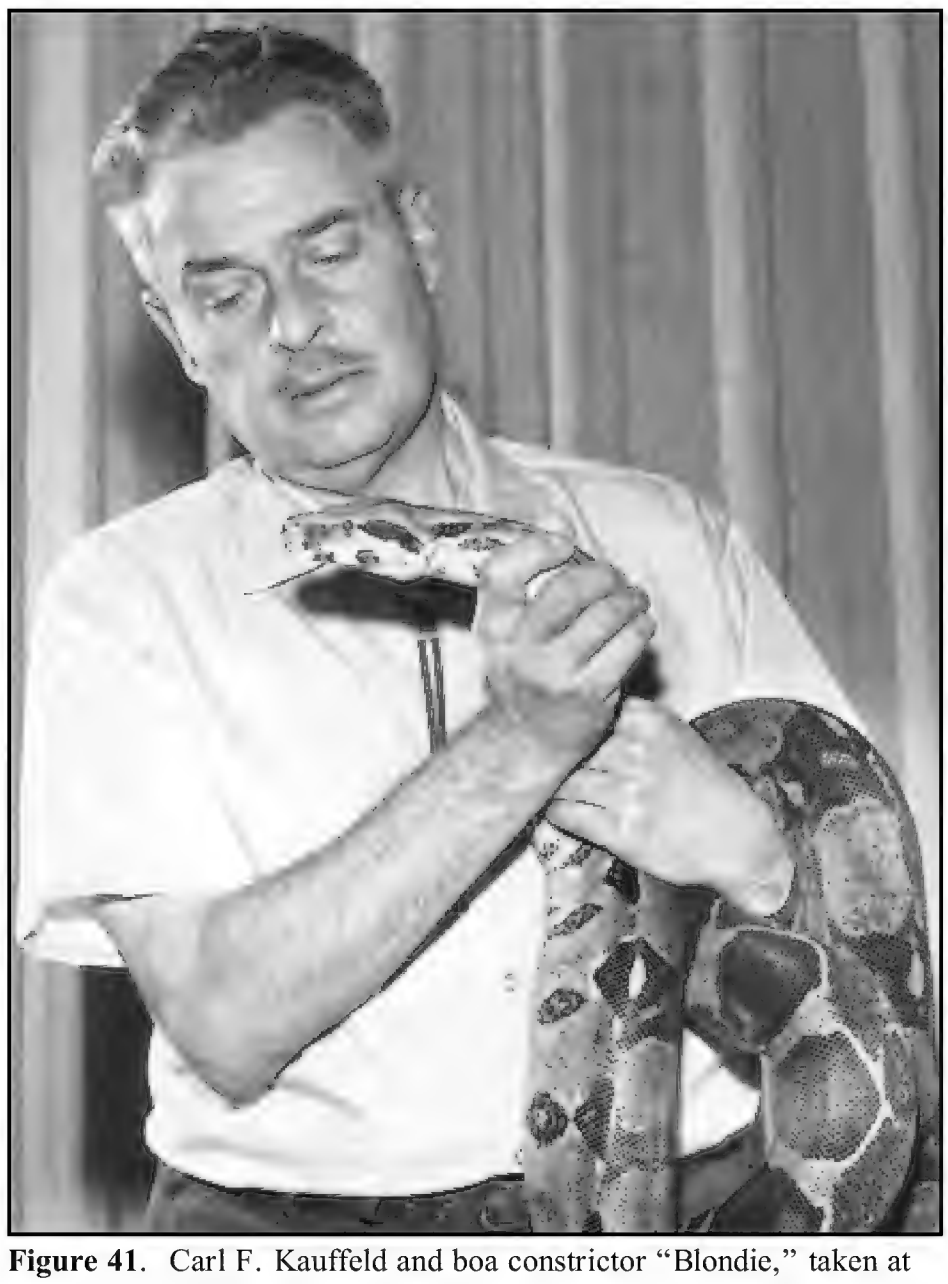
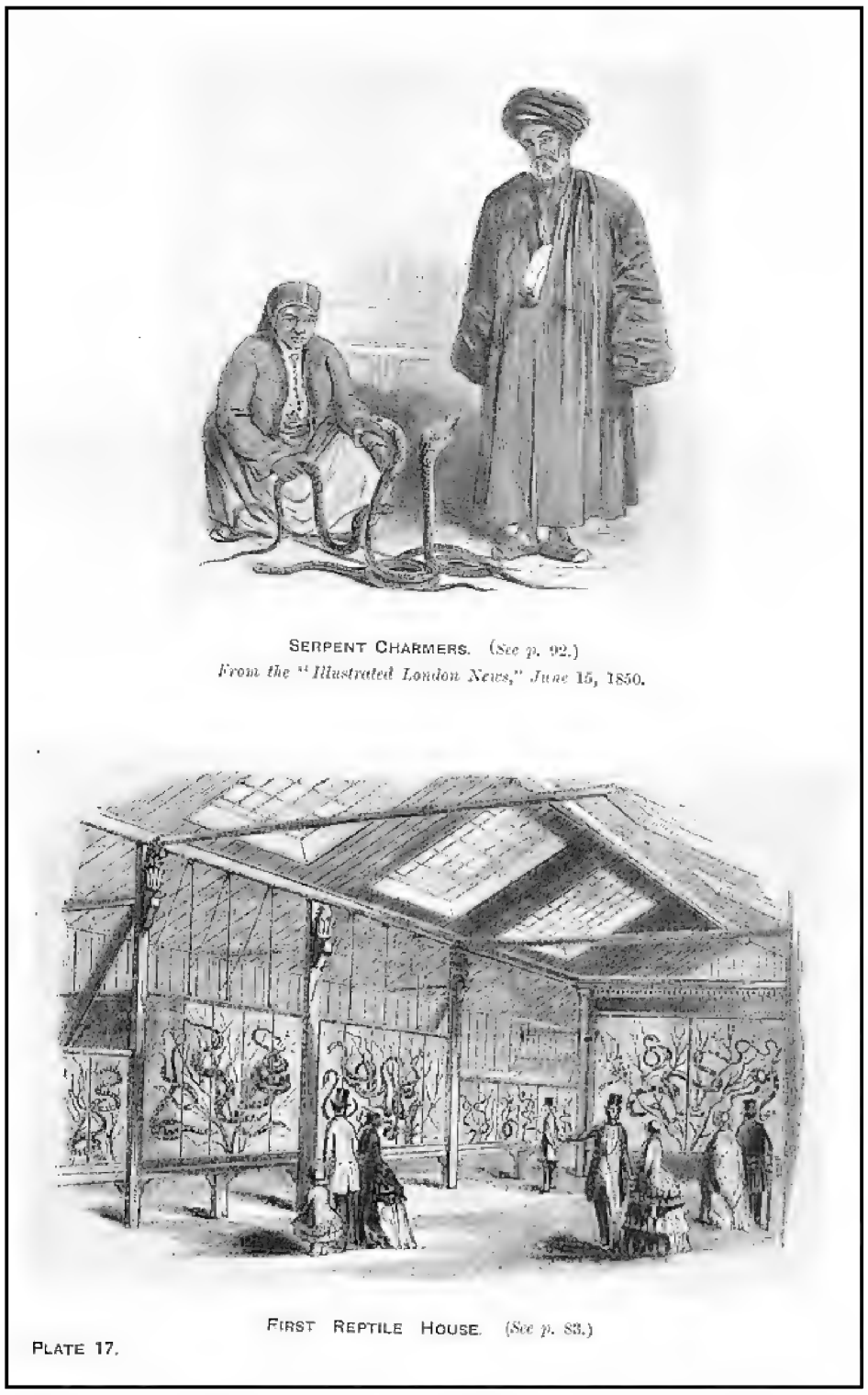


Figure 41. Carl F. Kauffeld and boa constrictor "Blondie," taken at Staten Island Zoo in October 1967. Photograph by Jack Muntzer, provided by Robert Zappalorti.



SERPENT CHARMERS. (*See p.* 92.)
From the "Illustrated London News," June 15, 1850.

FIRST REPTILE HOUSE. (*See p.* 83.)
PLATE 17.

Figure 42. Snake charmers at the London Zoo. *From* Scherren, H. 1905. The Zoological Society of London. London: Cassell. Courtesy of Smithsonian Institution Libraries, Washington, D.C.

nervous system . . . the slight differences in light and temperature, the ease of obtaining food, and the absence of the normal, populated environment. The monotonous life in captivity also causes a certain blunting of normal sense activity, which the reptile amateur likes to designate as 'tameness'."

Hans-Günter Petzold (1984: translated from German) examined "tameness" in reptiles: "The term 'fearlessness' is probably the most appropriate; shyness (= enemy avoidance as one of the general situations of animal life) as well as fearlessness, as every terrarium expert confirms, in many cases manifests relations to abiotic and biotic environmental factors, yet not in others (cf. Mertens, 1969: *Über Scheu und Furchtlosigkeit bei Reptilien, besonders bei Inseleidechsen.* Zool. Beitr. [N. F.] 15:347– 361). . . . Mertens (l. c.) says that 'however vital shyness is in the presence of enemies, energy-saving fearlessness is useful in the absence of enemies'. . . . Many herpetologists and terrarium practitioners have described vividly how important the size of living space can be for this 'switch' [change of behavior]. Monitors, 'wonderfully tame' in the room terrarium, change in outdoor enclosures into hissing and biting predators; Mertens (l. c.) described similar changes for snakes (*Elaphe flavirufa*) which are taken from the terrarium

Figure 43. Indian snake charmers often used the cobra-de-capella or cobra-da-capello (*Naja tripudians*, now *Naja naja*) for demonstrations. In 1852 Edward Horatio Girling, head keeper of the snake room at the London Zoo, was killed by a snake of this species after consuming an impressive amount of spirits at the local public house earlier that day. Girling announced that he was "inspired" and grabbed a cobra a foot behind its head; it bit him on the nose. Illustration from *Cassell's Natural History* published in 1877– 1882. Courtesy of Smithsonian Institution Libraries, Washington, D.C.

and 'simply placed on the floor of a room'."

Petzold continued, "Yet many reptiles recognize their keeper . . . and are able to distinguish him from other persons. . . . In the Frankfurt/Main Zoo a Komodo monitor came to know the veterinarian already after the second treatment and could no longer be persuaded to leave his hiding place as soon as the latter appeared (Lederer, 1931: *Erkennen wechselwarme Tiere ihren Pfleger*? Wochenschr. Aquar.-Terrarienkunde 28: 636-638). He even recognized the operating table and fled from it. For zoo mammals there are innumerable examples to reflect this unusual state of affairs, but for a reptile it demonstrates a remarkable level of psychic development; it would be worthwhile to examine relevant behavior in crocodiles, for instance. Here I refer to a small publication by Wermuth (1963: *Farbwechsel und Lernfähigkeit bei Krokodilen.* D. Aquar.-Terrar.-Zeitschr. (DATZ) 16:90– 92.) who kept a *Caiman crocodilus* for many years as a 'member of the family' and was able to make interesting observations regarding his ability to recognize specific persons."

Petzold examined the role of temperature: "Kitzler (1941: *Die Paarungsbiologie einiger Eidechsen.* Zeitschr. Tierpsychol. 4:353– 402.) and Mertens (1969) contain systematic research about ways in which 'tameness' in lizards can be influenced. In terrarium animals it can be demonstrated at any time that their tameness is inversely proportional to the preferred temperature; i.e., that even 'tame' animals remain tame only as long as they enjoy optimal temperatures; on the other hand (perhaps in the early morning, unless torpor plays a role) they are as 'shy' as at the beginning of their keeping [when newly acquired] may be explained by the fact that the flight reaction is anchored in lower centers than the dominant inhibition acquired by 'training.' Cold at first neutralizes the higher centers. A 'cold' animal flees more rapidly (or, more specifically, sooner)

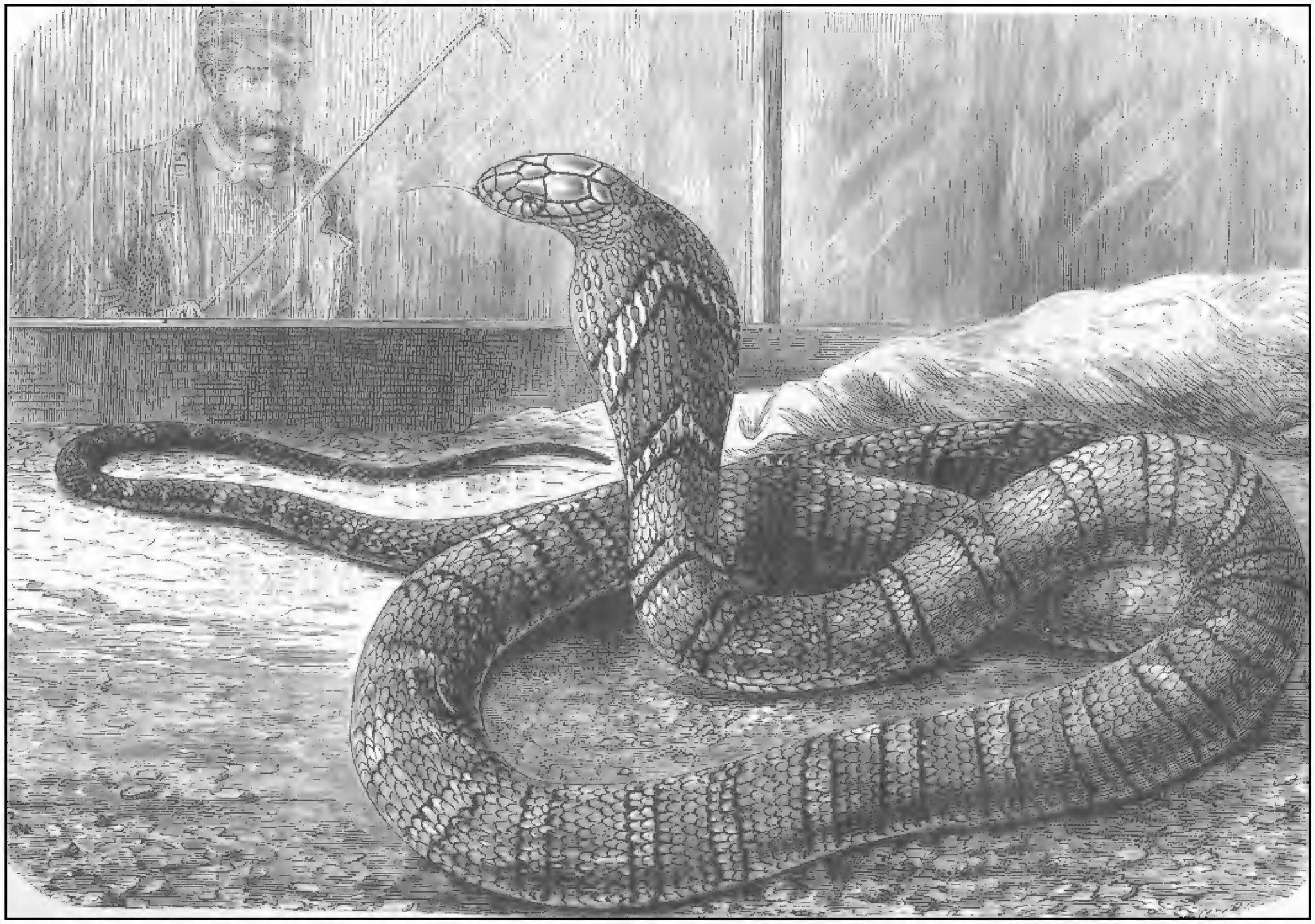


Figure 44. "The Ophiophagus in the Zoological Gardens of London knows its keeper and feeding-time. When a Snake is put into the cage it is immediately on the alert, and the victim tries to escape. But the attack is commenced at once, and the prey is seized behind the head and dragged on to the floor, and gradually swallowed head first." Illustration from *Cassell's Natural History*, published in 1877– 1882. Note keeper poised in background with snake hook at the ready. Courtesy of Smithsonian Institution Libraries, Washington, D.C.

and compensates for its temperature-conditioned lower mobility."

Finally, Petzold described his experiences with the buff-striped keelback snake: "*Natrix stolata* imported from India demonstrated their characteristic defensive behavior in the Berlin Tierpark — first lifting and dorso-ventral flattening of the neck; finally, at the stage of highest excitement beating (thrashing) about of the whole body and attack with wide-open mouth — for about three months, then significant increase in the stimulus threshold (meanwhile the animals had been bred and were in the best mood, until after about one year it was no longer possible to provoke the reaction at all) (Petzold & Stettler, 1972: *Zur Haltung und Fortpflanzungsbiologie der Indischen Streifennatter*, Natrix (Amphiesma) stolata (*Boie 1827*). D. Zool. Garten (N. F.) 41:192– 195.)."

To summarize, Henry Fitch (1980) wrote, "Thus, captivity will result in intensive selection, molding the animal in a manner quite different from that followed in its natural environment. The final product will be an animal much better adapted to live in close association with humans, in the home or laboratory, but less well adapted for life under natural conditions." These questions about the effects of captivity have not been adequately answered but are certainly worthy of additional study.

Acknowledgments

This paper is dedicated to Dr. George B. Rabb, retired director from the Chicago Zoological Society, who provided materials on Wiley from the zoo archives. He began his professional career as research coordinator at the Zoo in 1956 and had been Director since 1976. Rabb is former Chairman of the Species Survival Commission (SSC) of IUCN — The World Conservation Union — beginning in 1989. In this role, he was crucial in forming and supporting the Declining Amphibian Populations Task Force under the aegis of IUCN. For his accomplishments, he was awarded the Peter Scott Award in 1996 by SSC. He was instrumental in establishing the International Species Information System (ISIS), the inventory listing of captive animal populations which is crucial in providing data to insure proper pairings of potential breeders. Rabb is internationally known as a conservationist and herpetologist, serving as Past-President of the American Society of Ichthyologists and Herpetologists. With his colleague, Hymen Marx at the Field Museum of Natural History, George wrote many seminal papers on snake evolutionary biology. Rabb published a number of important papers, some with his wife Mary, on amphibian reproductive behavior.

We thank Judith Block for reading an early draft of this

article. Lucian Heichler assisted with translations. Assistant Registrar Mandy Murphy at Smithsonian's National Zoological Park (NZP) checked animal records. George Zug from National Museum of Natural History searched for the elusive black king cobra in the herpetological collection. NZP librarian Alvin Hutchinson located important historical information. We are grateful to Bill Turner and Bill Blevins for information on Wiley and Dickinson. We thank Falk Dathe, Arthur Dunn, John Edwards, Ron Goellner, Ken Kawata, Gisela Petzold, Brint Spencer, and Robert Zappalorti for providing photographs. Discussions with Kraig Adler, Gordon Burghardt, Jonathan Campbell, David Chiszar, Jon Coote, Kevin de Queiroz, Darrel Frost, Harry Greene, W. Ronald Heyer, Roy McDiarmid, Trooper Walsh and George Zug have expanded our understanding of relationships between snakes and humans.

Selected References on Snake Handling

As described and pictured in some publications below, some handlers are exploiting and dominating the snakes in contrast to Grace and Wes; animals are held behind the head or by the tail rather than by supporting the body. Venomous snakes are often grabbed with tongs, pinned roughly, and mouths forced open to show fangs or extract venom. Sometimes the snakes are piled in snake pits or boxes and kept in deplorable conditions without food or water. Egregious examples of inhumane handling include rattlesnake roundups, snake charming, fundamentalist religious revivals, traveling sideshows, and roadside exhibits. Representatives from animal-rights organizations have been curiously mute in the face of these barbaric practices in contrast with outrage at the clubbing of baby seals, for example.

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Brown, F. W. 1941. The serpent handlers: Three families and their faith. John F. Blair, Publisher, Winston-Salem, NC.

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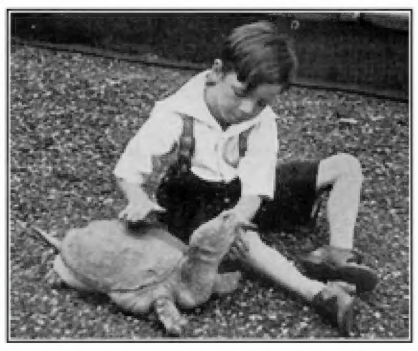
"STUDY NATURE, NOT BOOKS"

-- LOUIS AGASSIZ.

How would you like to hold a rattler in your hand, as this fellow is being held?

Grace Olive Wiley: Naturalist, Lecturer
Curator Museum: Minneapolis Public Library

"You may ask, 'Who is this woman who does these wonderful things by gentle handling, a soft voice and an understanding heart?' She is Grace Olive Wiley of the Minneapolis Public library. At this library, there is a museum with a collection of over 300 living reptiles, frogs, fish, birds with mended wings, bats and other creatures. Classes from the schools of the city and other cities and towns are regular visitors. Of course, children are kept away from dangerous or wild creatures, but they see and hear what kindness will do, and how friendly wild creatures really become if one treats them wisely and understandingly. Sometimes three or four schools come in one day."



Is all this worth while? Isn't anything worth while that gives children a better understanding of these out-door folk? Isn't anything worth while that frees us from unreasoning fear?

(Printed matter is from The Milepost of Ames, Iowa, on occasion of Grace Olive Wiley's lecture there.)

How I Became Acquainted With Snakes

As an entomologist and nature lover, I was very much afraid of snakes! I knew nothing about them, and I had acquired enough **mis**information to cause me to dislike and fear them. Now, snakes have no terror for me—even the most dangerous ones—and my love for **all nature** is truly complete. I have tamed more than one hundred of North America's deadly snakes: copperheads, moccasins, and rattlesnakes. I know them to be the gentlest, most adorable creatures in the world, once they have learned no harm is meant them.

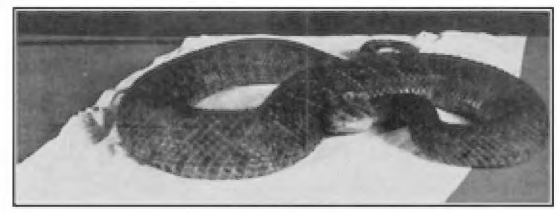
This is how I grew to like them. At a mid-western University, I learned that diamond rattlesnakes and other reptiles from the southwest were wanted for their museum. I was about to leave for a trip to Texas. A friend explained how, by using a snake stick, even poisonous snakes might be captured without danger. I offered to try to get specimens. After capturing a few harmless snakes, I succeeded in taking a real live western diamond-back.

It was thrilling. I grew more interested in snakes, and began to note their habits. I obtained books on reptiles and soon learned some authentic information about them. I became more fascinated as time went on, and my fears vanished completely. A **new world had opened before me!**

GRACE OLIVE WILEY.

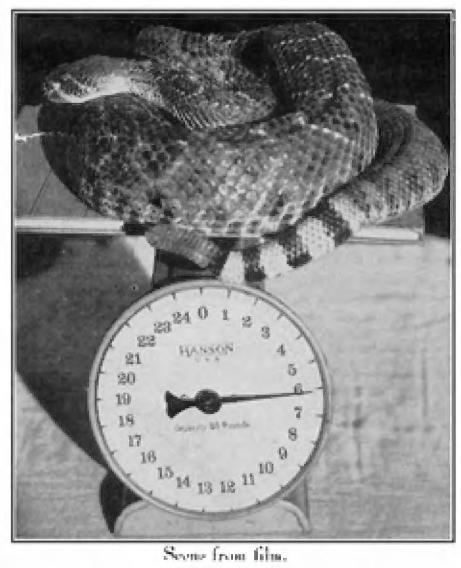
Kindness Wins---Even With Rattlesnakes

"A cage in the zoology department at Iowa State College contains four rattlesnakes from California, ranging from 30 inches to four feet in length, all of them with their poison fangs just as when they were caught. They had never been handled. One day a gentle, soft-voiced little woman came to the department office, opened the cage door and petted them. She rubbed their heads and bodies with a cloth tied on the end of a stick. In a few minutes she was petting them



Rattlesnake shedding its skin; only picture of its kind in existence. Film shows process.

with her bare hands. In ten minutes she had reached in her hands and taken out the largest rattler, she talking soothingly to him as she did so. After petting him, rubbing his head and throat and letting him touch her hand with his tongue until he trusted her a little, she took him to a pan of warm water and bathed him, then dried him with a towel. She took him up in her arms as though he were a kitten. As a cat would, he arched his back against the hand that stroked him."



Scene from film.

"Was he tame? She said: 'No, he has merely found that I'm not going to hurt him'. It takes a good deal more time than that to get a snake's entire confidence. But this woman has tamed more than 70 poisonous snakes,—rattlers, big and little, copperheads, cottonmouth moccasins. All learned to trust her as their friend. Each one of them had its poison and its fangs, but what of that? Why bite a friend? She finds them very good-natured when tame—and she has the supreme nerve to tame them. Once a big Texas rattler was lyin her lap. A pet kitten climbed atop his coils, cuddled down and went to sleep."

Comments

The lecturer will show a three reel motion picture of reptiles and animals, (35 M film) pronounced by many to be the most remarkable picture of its kind on record. By means of time exposure the rattler is seen shedding its skin, virtually the whole process being shown.

Your lecture will, I am sure, give thousands of people a new outlook on nature and I trust a new and saner attitude toward wild life. I am convinced that your account of the life habits, and economic importance of snakes, lizards, toads, salamanders, frogs, etc. will go a long way toward enlightenment of the public concerning these creatures; their very general harmlessness, their great importance to man, their distribution, their feeding habits, their reproduction, their general freedom from viciousness, and their susceptibility to domestication. The films you exhibited here under the auspices of the U. S. Dept. of Agriculture somewhat over a year ago, supplemented by your very instructive lecture, were aptly designed to portray in an unforgettable way all of these and other facts concerning reptiles and amphibia.

HARRY B. HUMPHREY,
Principal Pathologist, Office of Cereal Crops & Diseases,
U. S. Dept. Agriculture.

—

I have been acquainted with Grace Olive Wiley and her work for a number of years and can truthfully say that she knows better how to approach live wild animals of all kinds than anyone else I have ever met. Her love of animals from the highest to the lowliest, her enthusiam in telling about them, and her ability to communicate her knowledge to others is truly remarkable. She certainly should be able to hold the attention of an audience and arouse an interest in natural history that will not only instruct but will make nature lovers of her hearers. I have seen the films with which she illustrates her talks and they are both in subject matter and execution all that could be desired.

THOS. S. ROBERTS,
Dir., Museum of Natural History,
University of Minnesota.

—

I enjoyed your film very much indeed and consider it not only an example of good photography of reptiles, but highly educational as well as entertaining.

W. M. MANN, Director
National Zoological Park,
Washington, D. C.

Familiarity with apparent danger is always thrilling, but Grace Wiley's film shown before a packed auditorium at Iowa State College did more than thrill, it fascinated. People expect to see dangerous animals exhibited as jailbirds not as citizens, but here were excellent pictures of snapping turtles, alligators—yes and big venomous rattlesnakes shown as intimate friends, not enemies; as pets, not captives. And as you watch, you do not think of the woman as fool-hardy but as patient; not as in peril, but as having conquered danger by gentleness and understanding. It is a new slant on those animals, confessedly dangerous, of course, but which we persistently and universally suppose to be therefore vicious as well.

From the standpoint of the big rattlesnake and of the woman whom he grew to trust—yes and from the standpoint of a spellbound audience one wonders that the film was not entitled "Conquest of Fear".

J. E. GUTHRIE,
Professor of Zoology,
Iowa State College,
Ames, Iowa.

—

I wish to congratulate you on your remarkable success in producing a moving picture illustrating some of our common and yet little-known reptiles. I regard the film as an outstanding one among the many dealing with our native fauna which have been produced in recent years. It should be made available for school and college use and I hope that you can make it so.

WM. A. RILEY,
Chief of the Div. of Entomology,
University of Minnesota.

—

The most unusual film ever made—this story of reptiles and what kindness to them will do. Grace Olive Wiley, sponsor of the film, has a very fascinating message to present—one of the highlights of the film, a five-foot rattler shedding its skin.

RAY-BELL FILMS, Inc.
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